



Holmach NEWS

Enabling State-of-the-Art Manufacturing

NATIVE STARCHES

Going back to basics can equal significant cost savings



The Perfitherm Scraped Surface Heat Exchanger Represents the Perfect Solution to Lower Production Costs of Personal Care, Laundry and Food Products, without Compromising on Quality.

Modified starches represent a huge investment on a manufacturer's balance sheet but with both consumers and manufacturers feeling the pinch, we are advocating going back to basics with the use of native starches where viable, offering a significant financial saving without compromising on quality.

A modified starch has been chemically or physically treated to change its properties, which is expensive and can be logistically difficult to manage.

Native starches are more readily available as they're extracted directly from plants, such as corn, wheat and potatoes, and then dried.

Perfinox's Perfitherm has been designed for the continuous processing of viscous and other challenging products, making it ideal for the pre-gelling of native starches. Rapid heating of the flour base up to 85°C for 5 minutes, followed by rapid cooling, creates the perfect starch gel that can be fed directly to a personal care, laundry or food processing line.

For cold-filled products such as clean-label mayonnaise, through to fabric conditioner and shampoo, native starches are a real alternative for their more expensive and sometimes 'over-engineered counterparts. As long as the process doesn't involve too much heat for a long period of time, native starches offer comparable versatility, stability and quality.

Ultimately, the decision of whether to use native starches or modified starches is a complex one that should be made on a case-by-case basis, but the cost savings warrant manufacturers at least taking a look.

For more sustainable cost saving solutions, get in touch.

Changing the Narrative on 'Processed Food'

Our customers are doing ground-breaking work to ensure that their 'ready to heat' and 'ready to eat' products are delicious and nutritious and free from unnecessary additives and preservatives. They're also using thermal processing to maximise the product shelf-life, opening up new retail distribution opportunities and significantly minimising waste as a result.

Even with all of this effort, a flurry of misinformation and outdated classifications leaves many consumers defaulting to the opinion that these 'processed' products are 'bad for them' because they're packed full of unhealthy preservatives and flavourings.

We're working with our industry partners to shine a light on the inaccuracies of the media and food classifications with a view to opening up the conversation and ultimately changing the way consumers and the media portray 'processed food'.

Our thermal processing technology partners including Lagarde and Perfinox are also doing their bit with ongoing research and innovation to ensure they're supporting UK and Eire manufacturers with the healthiest and most sustainable solutions.

Get in touch to be a part of the conversation.



Lagarde Autoclaves Launch Innovative Green Cooling Technology

This new technology takes Lagarde's sustainability credentials to the next level, enabling manufacturers to reduce their water usage by up to 60%.

Traditionally steam/air retorting requires an external water source to pump additional water through to cool products. The new 'GREEN ONE' Range from Lagarde Autoclaves takes sustainable manufacturing one step further by recovering the condensates from the steam and air cooking process and recycling them within the cooling process.



PROJECTS & UPDATES



FEELING SAUCY!

Overcoming dip and sauce manufacturing challenges through advanced innovation and process development

The dips and sauces market continues to soar as time poor consumers look to replicate international cuisines at home. With this opportunity in mind, manufacturers need to ensure that their products pack a punch on flavour, whilst ticking all of the boxes in relation to shelf life, the even distribution of particulates, positive mouthfeel, repeatable quality and of course nutrition.

Consumer spending is under threat and sustainability objectives are high on the agenda, dictating that these objectives need to be achieved cost effectively, whilst minimising the use of water and energy.

Alongside our market leading technology partners, we've been working with some of the UK's leading dip and sauce manufacturers to develop technology and process solutions that not only achieve the financial objectives of the business, but also meet or exceed consumer expectations in terms of product quality.

These are just some of the projects that we've been working on:

A sustainable batch process to maximise the shelf-life of pouched sauces = Lagarde Autoclaves

A vegetable sauce manufacturer were looking for a cost-effective and sustainable batch process to pasteurise their pouched product, ensuring the best quality outcome with maximum shelf-life. Lagarde's retorting technology provided the ultimate solution, resulting in a delicious and nutritious product that meets the needs of a premium foodservice customer.

An efficient cooking solution to integrate with an existing line = Perfinox Perficooker

Perfinox's Perficooker was the ideal solution for a leading manufacturer that was looking to consolidate production of their stocks and sauces to a single site. Integrated with their existing line, this installation offers a high efficiency cooking solution that has the flexibility of feeding into a Perfinox buffer vessel and/or Fillfast's hot fill solution.

Transferring hot-filled sauces for cold storage = Fillfast Piston Filler

A globally recognised manufacturer was looking for a hot-fill solution for the transfer of sauces for cold storage and then onward distribution to food service customers. Integrating with a Perficooker and / or buffer vessel, Fillfast offered the best solution in terms of sustainability and flexibility.



Upscaling production whilst ensuring consistency and positive mouthfeel for a plant-based range = Roboqbo

The natural creamy texture and significant nutritional benefits of cashew nuts meant that they were the ideal base for Origin Kitchen's new range of plant-based sauces.

The manual, labour intensity of their homebased process restricted production capacities and limited the growth potential of the business, whilst also potentially causing issues with product variances. Roboqbo's universal processing system enabled them to complete all parts of the manufacturing process in one single vessel in less than a quarter of the time, whilst extending product shelf-life. The flavours were more intense and the greater shear of the Qbo enhanced the creamy mouthfeel of the product range even further.

Every dip and sauce project is different, from the enzymatic reactions and process requirements of raw ingredients, through to the available factory space and existing lines. With almost 50 years of application experience and a market leading portfolio of sustainable technology solutions, we're able to offer a bespoke solution for each and every project.

Antonio Mengibar S.A's Corrosion-Proof Series

Due to the damage that corrosive products such as acids and bleaches have historically caused to filling and capping machines, many manufacturers opted for cheap machines with the expectations that they would only offer a short-term solution.

Mengibar's team of engineers strongly believe that technology investments should be reflective of a long-term plan and not a quick fix. However, they are also conscious of customer budgets, so they developed a competitively priced series of robust, corrosive-proof filling and capping solutions.

These filling and capping solutions from the Barcelona based manufacturer have been designed specifically for

applications in hazardous and extreme environments. Robust machine design has been combined with the strategic use of materials including titanium and hastelloy, with a Halar® coating.

In a recent project, the customer's Monoblock was equipped with a continuous ventilation system which involved the machine base frame, filling carousel and capping carousels. All these elements were isolated from the corrosive atmosphere and over pressurised to prevent corrosion of the drives, gears, electricals, bushings, electronics, etc.

Find out more about Mengibar



Cooling Innovation to Enhance Jam Quality

With consumers seeking mass produced jam products that offer the same taste and quality as their homemade counterparts, manufacturers are looking to technology and processes to help them stay one step ahead of the competition.

Our market leading technology partner Niko have recently completed an innovative cooling project for a Swiss based jam manufacturer with higher quality aspirations for their existing product range.

The client's existing solution ticked all of the boxes in terms of performance, running at around 250 jars per minute, but the process didn't achieve expected product quality levels with the opportunity for improvement being identified within the cooling process.

Niko's expert team worked closely with the client to design and build a cooling solution that would be suitable for multiple jam products, allowing control of the gelling process, whilst ensuring the perfect blend of fruit throughout.

They moved from a metal-based conveyor to a plastic-based solution to minimise the transfer of latent heat when the jarred product was transferred for cooling. After a holding zone, the cooling section was divided into 3 equally sized zones, each with separate control units to enable the process to be adapted by product in terms of time and temperature.

This overall solution has meant that different gelling processes of the pectins can be initiated, leading to increased product quality and traceable processes across the seasons.

Find out more about Niko



NEW Compact and Sustainable Solution for the Cooling of Hot-Filled Sachets and Pouches

Lyco have recently launched the new Mini Flex Chill-Flow™ Cooler for the rapid cooling of single serve sauce sachets through to large food service pouches. Using 80% less water and energy compared to traditional tumble chillers and being available in the smaller 2.4 metre and 3.6 metre sizes, Lyco have actively addressed the challenges of maximising production levels and minimising environmental impact, alongside restrictions on factory square footage.

With traditional tumble chillers dumping water after every batch, the unique Mini Flex Chill-Flow design can hold the water for as much as a week resulting in lower water usage and lower energy costs, whilst achieving industry leading cooling times following the hot fill of sauces and condiments.



Find out more about Lyco



Holmach Ltd, Lagarde Autoclaves and Jorgensen Engineering are Leading the Way in Ambient Rice

With the consumer need for fast meal solutions, the demand for ambient microwaveable rice has been consistent over the past 20 years with Holmach, Lagarde and Jorgensen leading the way. Ongoing NPD targeted at the health conscious and plant-based markets continues to power growth.

The risk of contamination from C.Botulinum and Bacillus cereus and the quality demands for soft and fluffy rice, highlight the reasons why steam/air retorting is the most sustainable way to make food products safe with low water usage and perfect quality every time.

Lagarde's retorts have the capability to process thousands of pouches of rice every day. The premium build components and sophisticated PC based control system

allow precise temperature and overpressure control which is essential for processing flexible and semi-rigid containers. The internal cage allows products to be agitated during cooking, ensuring a fully homogenous process and perfect product quality. Alongside these Lagarde installations we've also commissioned six Jorgensen robotic systems for automating the handling of rice pouches into and out of the retorts.

FEI saw the huge potential for pouched rice back in 2002 when they worked with us to install a Lagarde 5-basket rotary retort at their Swansea based manufacturing facility. They have since continued to invest in Lagarde's technology and Jorgensen's rice pouch handling systems.

The superior product quality demonstrated in trials and later on in full production has been the key decider for capex investments from other UK ambient rice processors, with over 40 Lagarde installations across the market dedicated to pouched rice production.



FUTURE PROOFING OUR FOOD SOURCES WITH PROTEIN RICH INSECTS

A trend or a solution?

The climate crisis and the need to feed an ever-growing population highlight just some of the challenges that are going to exist within the global food chain over the coming years. New protein sources are going to be imperative to manage future demand and whilst manufacturers are way ahead in developing high-protein plant-based products, there's a long way to go in terms of consumer adoption and mainstream manufacturing that incorporates edible insects.

We've already worked on processing trials using the larvae of black soldier flies, with the intention of these nutrition rich maggots being used within a range of pet food products. Outside of this, we are actively working with our market leading technology partners to review the long-term potential for these new protein sources within the human food chain, whilst considering any food safety implications.

Still considered a novelty in western society, a predicted global population of more than 9 billion by 2050 means

that the writing is on the wall for edible insects to become so much more than that. Providing high-quality protein and essential vitamins and minerals including iron and magnesium, an adult cricket is 65% protein based on its body weight. This significantly surpasses the relative protein content of beef and tofu.

Offering a more sustainable solution with a simpler operational infrastructure compared to other protein sources, specialist manufacturers are leading the way in new product development, with pet food manufacturers actively re-evaluating their protein sources.

Chris Holland, Managing Director of Holmach Ltd said **"One of the key considerations for manufacturers will be the risks associated with bio-accumulation. It's not enough to just process these insects. It's imperative that manufacturers consider the diet that they will be fed on to avoid the potential risks of chemical and microbial contamination. Thermal processing in the form of pasteurisation or sterilisation will retain the nutrients whilst eliminating any microbial contamination, but chemical**

contamination will need to be considered within the NPD process."

Chris went on to say **"We're anticipating that the greatest demand for edible insects will be in the form of insect flours that can be used widely within high protein baked goods, without having the visible resemblance of creepy crawlies. Insect flours and powders can be heat treated removing pathogenic bacteria, larvae and eggs, whilst adding flavour."**

What does the future hold for edible insects? Will they follow the popularity trajectory of lobster? Originally considered an inferior meat, lobster was served to prisoners and now there's been a complete paradigm shift with them being reserved for fine dining experiences. TIME WILL TELL.



Mackie's of Scotland – From Sky to Scoop

On target to make their ice cream the greenest in the world

Mackie's of Scotland's sustainable 'Sky to Scoop' journey using wind and solar power is inspirational, generating twice as much energy as they use.

Their ongoing commitment to sustainability is reflected in all of their decision making, sitting happily alongside their dedication to quality and exceptional flavours.

In partnership with Roboqbo, we've worked with Mackie's for more than 5 years now and we're pleased to share some of their recent feedback.

"We're very happy with our Roboqbo – which allow us to make all the sauces and compotes used in our ice cream. We were amazed by how much each machine can produce, and quickly ordered a second after the success of the first. The quality of the sauces we use has improved overall, and we love having control over our own sauce making, which allows us to tweak and improve as we go rather than having to deal with a supplier."

Making all of our sauces on-site also feeds into our sustainability initiatives. Mackie's aims to be as vertically integrated as possible, doing as much as it can itself on-site, to reduce transport miles and associated emissions and run its machines using renewable energy".

Kirstin McNutt, Development Director, Mackie's of Scotland



[Find out more about Roboqbo](#)

Kick the Bucket – Fillfast's Sustainable Filling and Transfer Solution



Fillfast's patented Liquipacker aims to cut plastics use, reduce transport costs, waste and improve food quality all in one compact solution.

Aiming to reduce plastics used by 90% when compared with 3, 5 and 10 litre buckets, the Liquipacker is a large

pre-formed pouch filler that can be connected directly to a cooking vessel or other storage containers.

With hygienic design at the forefront, the flowmeter or servo driven piston filling of pouches means that every pouch has the correct volume, eliminating inaccuracies from time/pressure type systems. Using impulse sealing technology, each pouch is safely double sealed creating a high integrity hermetic closure without the need to apply heat. With no clips or leaking closures, and a tear tab included, knives are not required for decanting later. There is also a re-closeable spout option available.

The hermetic sealing of pouches not only ensures food hygiene and

security, but also allows the pouches to receive a secondary pasteurisation or sterilisation process if cold filling is preferred. Alternatively, they can be loaded into batch or continuous coolers prior to being taken straight into chilled storage.

Pouches can be shipped in cardboard outers, or in re-useable trays, reducing the space needed to dispose of empty containers as they can be compacted for disposal.



[Find out more about Fillfast](#)





The Future of Heat Transfer Technology

The Perfitherm Scraped Surface Heat Exchanger

With its versatility across multiple sectors, Perfinox's unique Perfitherm is fast becoming the Scraped Surface Heat Exchanger of choice for manufacturers across the globe.

From the rapid heating and cooling of low-fat mayonnaise and sauces with particulates, to pasteurising gels and emulsions with active ingredients, this advanced technology solution has been designed to integrate with existing lines as well as Perfinox's own wider product range.

- Capacity – from 100kg to 10,000kg per hour
- Rapid inline heating or cooling whilst maintaining product integrity
- From 0.5 to 7 square metres of surface area

- Only one mechanical drive and seal
- Low rotor RPM and large product path eliminate damage to particulates such as whole fruit and soft vegetables
- Enables easy inspection from the top without causing seal damage, in line with new retailer required standards
- Ideal for aseptic installations with flushable seals
- Pumps from bottom to top
- Designed for CIP and SIP

Recent applications include toothpaste, fabric conditioner, plant based dips and mayonnaise.



Maximise Your Uptime by Reviewing Your Spare Parts Policy

Our priority is to ensure that our customers maximise the uptime on their production lines because quite rightly 'time is money'. One of the easiest ways to do this is to ensure that you hold a stock of recommended spare parts so that any repairs can be carried out immediately, without the risk of delay caused by postal strikes and transport issues.



For an additional copy of your recommended spare parts list please email janine@holmach.co.uk or give her a call on 01780 749097.

After Sales Support

Our dedicated after sales service includes:

- Technical and Thermal Process Advice
- Maintenance / Emergency Call Out Service
- Service Contracts
- Spare Parts



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Two New Lagardes Delivered for Sous Vide Meat Range



It's always a special day when our UK and Eire customers take delivery of their new technology solutions.

Two new Lagarde Autoclaves have just arrived on British soil, ready to be used in the manufacture of a range of delicious sous vide meat products.

Cooked in heat-stable, vacuum pouches, Lagarde's patented steam/air process will enhance the taste and nutrition of the products, whilst maintaining the moist home-cooked textures and aromas – All of this, as well as establishing a commercially viable product shelf-life.

To minimise the commissioning period and enable our customer to hit the ground running, prior to delivery we worked with them to establish and validate the best process.

Find out more about Lagarde

