



GEA MAXIFORMER: RAISING THE BAR IN DRUM FORMING

More than just technology

Excellence at every stage

The drum forming of chicken, pork and meat replacement products is not new: it's been a standard technique in food processing for many years. But perfecting it?... now that really is different.

In developing the new MaxiFormer, GEA has dissected the technology, scrutinised every element, perfected the design and refined its operation to achieve excellence at every stage - without compromise.

The GEA MaxiFormer is better in every way than anything that has gone before. Its innovative new drum is more rigid, so has better weight distribution; the knock-out system is more efficient and uses less air; and the Handtmann vacuum filler operates as part of a unique patented process that fills each cavity carefully and progressively for better structure retention. GEA has also completely transformed the way the drum is cleaned to reduce downtime and maintain high plant productivity.

More than just technology

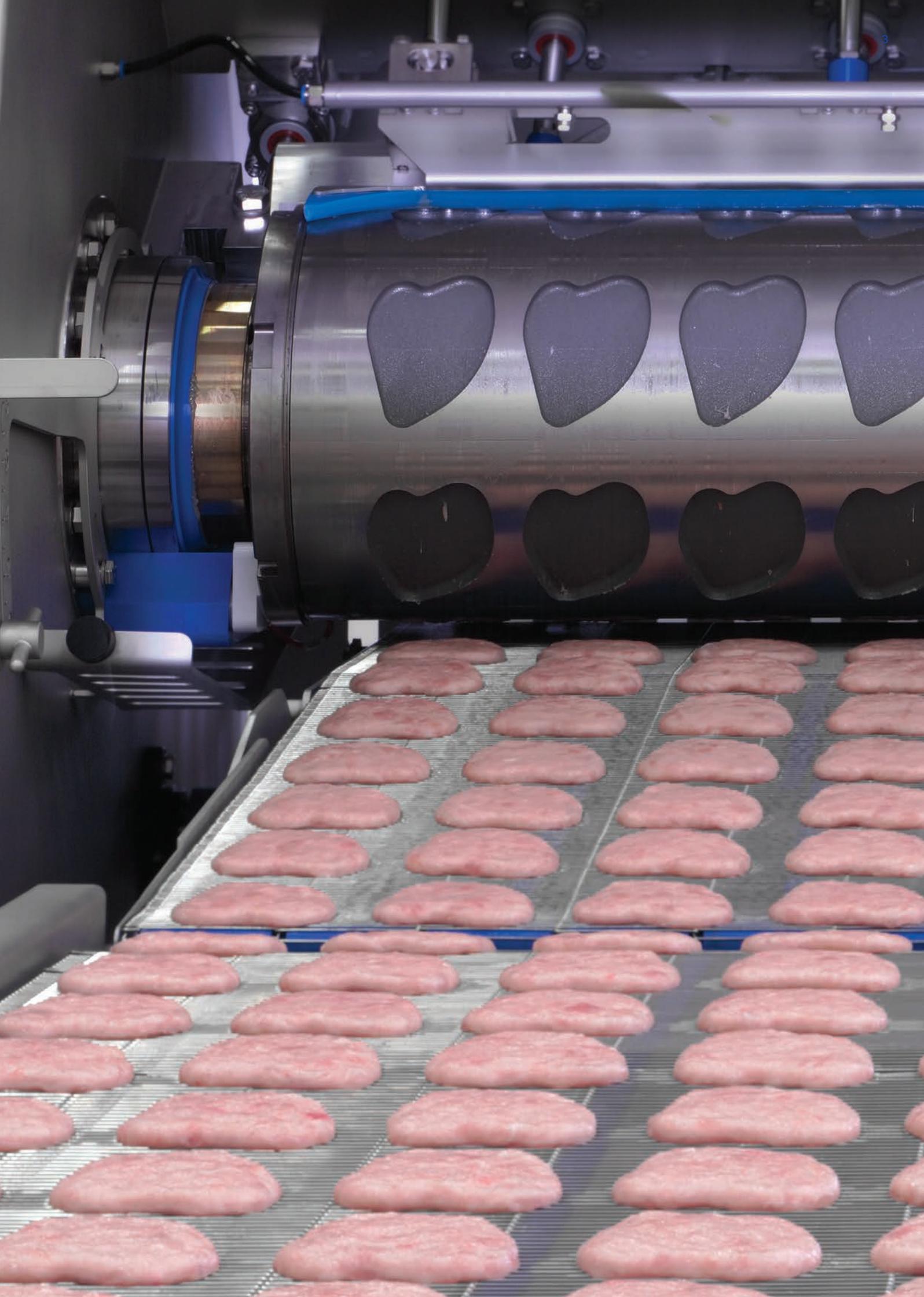
Perfecting the technology is important, but GEA knows that its customers need much more. What really matters is the whole package: bringing consultancy, testing, technology, processing know-how and committed lifetime support together to provide the ultimate partnership.

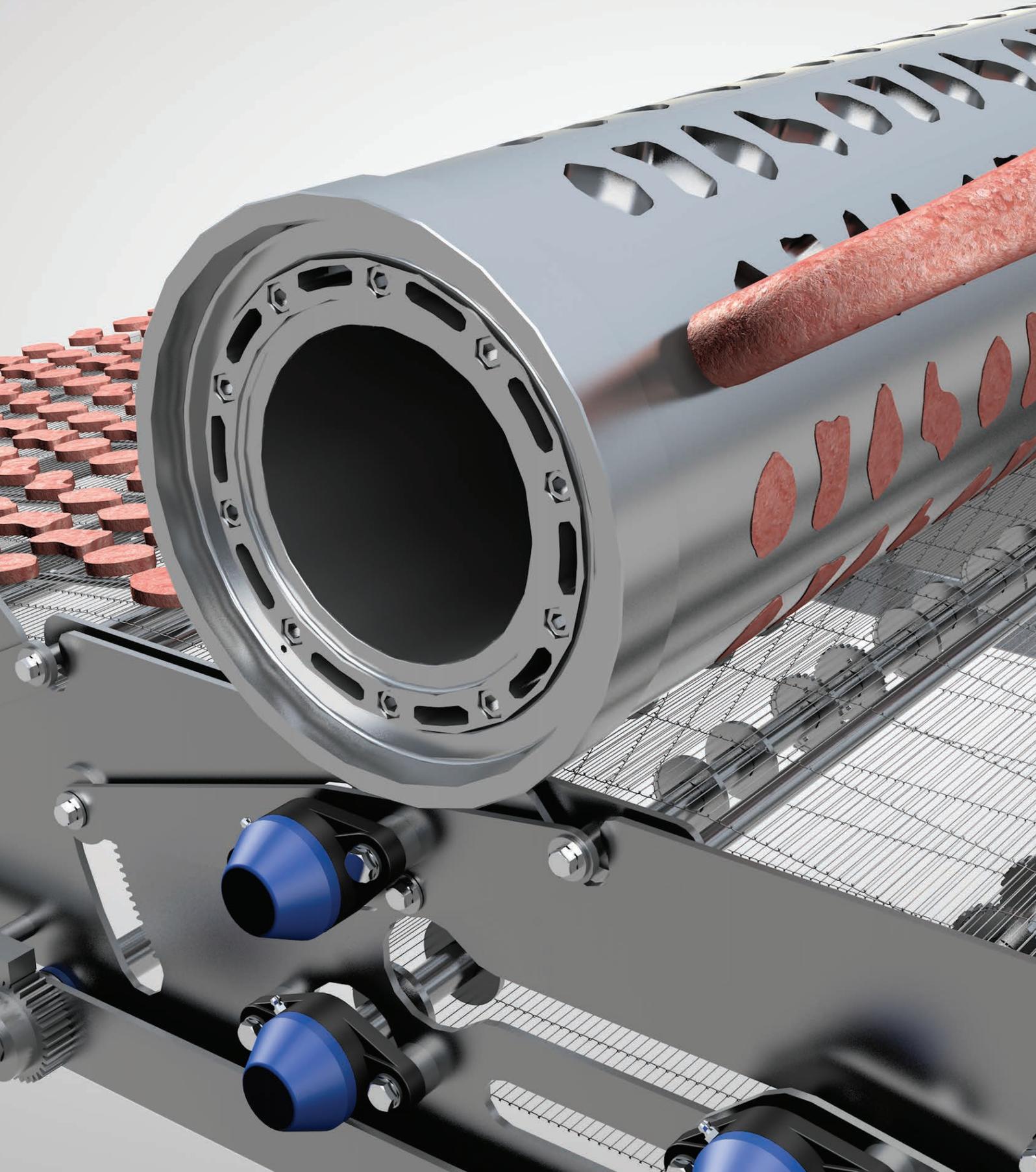
To stay ahead of their competition, manufacturers need to provide consistently high-quality food for discerning consumers. But they must do more.

They must innovate, experiment, develop new exciting products and bring them to market quickly and profitably.

The new MaxiFormer, backed by GEA experience and world-wide, lifetime support, provides the true next step in drum forming technology, raising the bar, minimizing the total cost of ownership and allowing customers to achieve excellence at every stage.





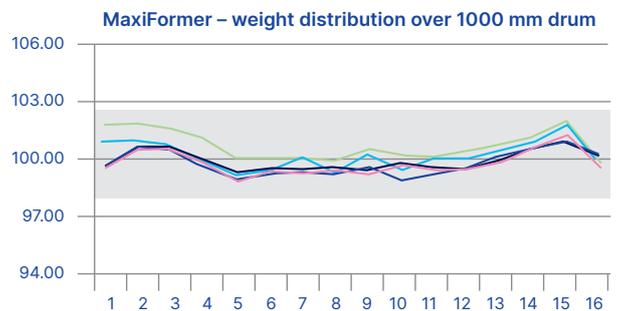


Raising the bar in drum forming

The new GEA MaxiFormer has been designed by GEA to solve many of the problems traditionally associated with drum forming. By fully understanding the whole process, including the critical grinding and chilling operations, GEA has made detailed but important changes to the technology, that have a big effect on the final product.

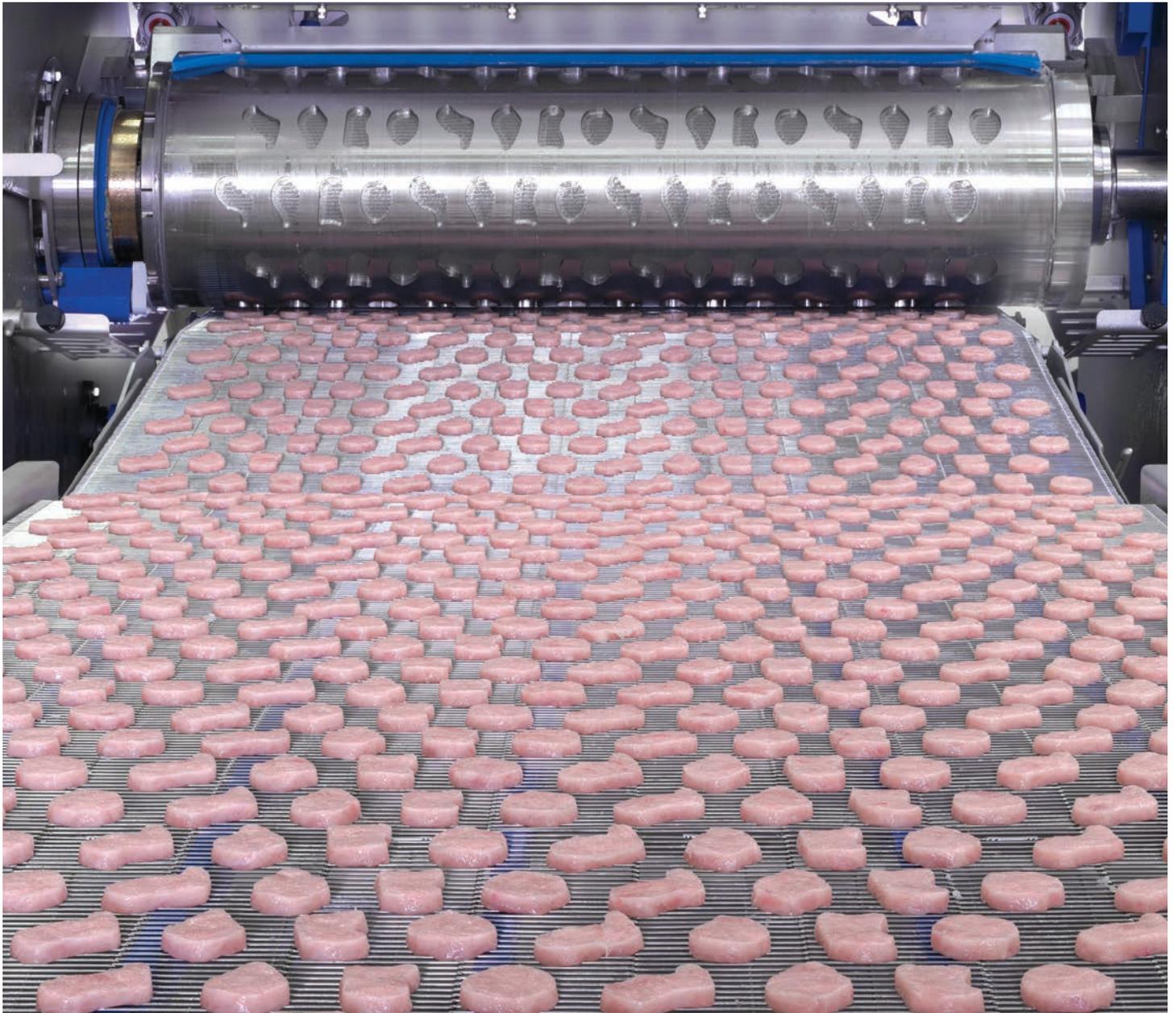


GEA has also introduced the world's first 1000mm-wide drum-forming machine that maximizes capacity up to 250.000 nuggets per hour, while providing denser loading and reducing the risk of doubles that affect the quality of the final product. In short, MaxiFormer maximizes all the critical elements for better productivity, better repeatability and better quality.



GEA MaxiFormer: the best technology for better products

To make GEA MaxiFormer better, GEA has partnered with vacuum filling market leader Handtmann to achieve more accurate filling with less wastage, creating a high-quality formed product with excellent structure retention using the minimum of power.





Better drum design

The MaxiFormer has a unique spoke drum design with a more rigid structure that prevents the drum from flexing and ensures consistent filling pressure across the entire width of the drum. This allows more accurate filling, achieving a standard weight deviation at least twice as accurate as ordinary systems for 2D and 3D formed products and minimizing product giveaway. GEA has designed an optimal knock-out system that ejects the formed products using dry air at high pressure to each row of cavities, not the whole drum. This system uses 40% less air and reduces energy costs.



World's first 1000 mm wide drum with air knock-out

MaxiFormer is available in 600mm and 1000mm-wide versions. For customers needing the maximum throughput, the 1000mm wide option provides the ultimate in cost-efficient space utilization and belt loading.



GEA MaxiClean for better cleaning

GEA MaxiClean is a new technology from GEA that provides high-speed drum cleaning to minimize downtime, maximize productivity and allow fast product changeover. Unlike ordinary drum cleaners the MaxiClean automatically monitors and constantly optimizes the temperature, flow and pressure of the fluid during cleaning, comparing it with that data from a clean drum. In this way you will know exactly when the drum is clean and ready for service.



Safe drum handling

The GEA MaxiCarriage enables the used drum to be simply and safely moved from the MaxiFormer to the MaxiClean for fast, efficient cleaning and secure storage.

It's all in the mix

The way in which the product is mixed is critical to the success of the forming process. Get it wrong and productivity will be seriously affected. Fortunately, GEA is here to help.

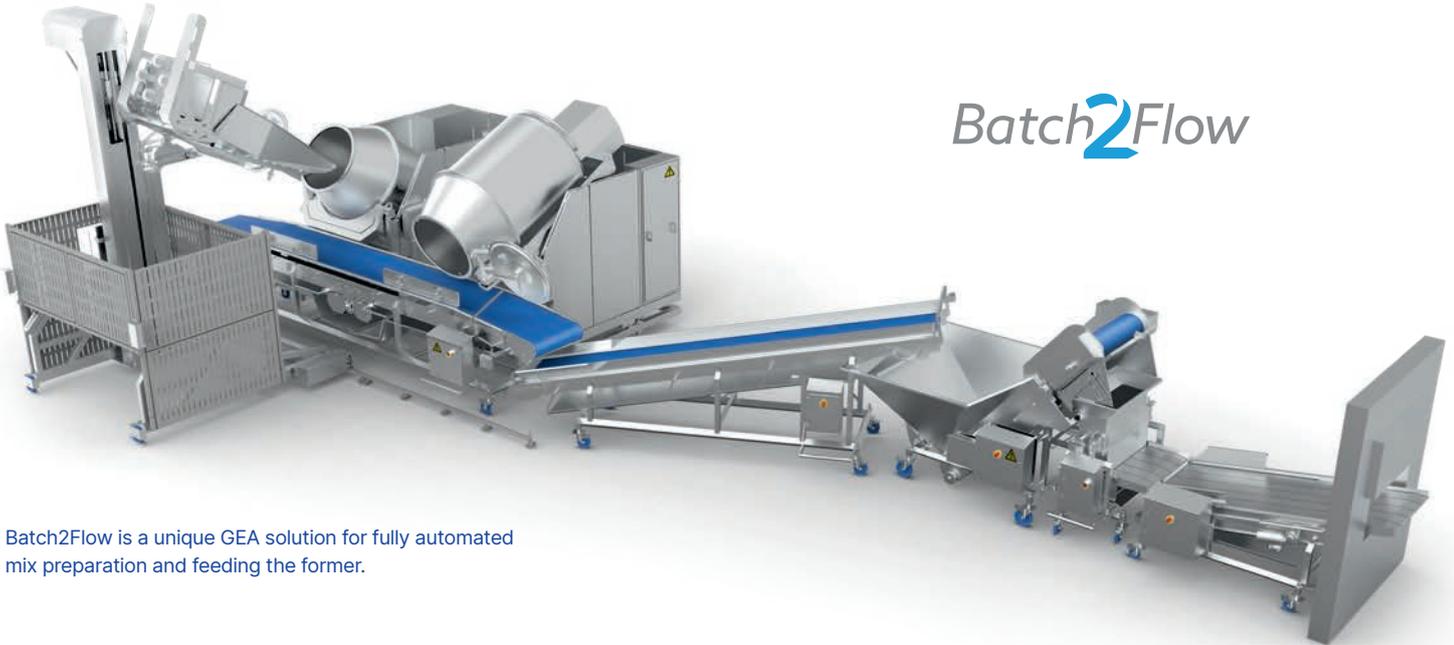
Product must be chilled to precisely the right level of crystallization before forming: too little crystallization and the product will be too soft to be transported down the line and meat will penetrate the porous material of the drum, resulting in more cleaning and less uptime. Too much crystallization and the flow of mass will be insufficient, the increased pressure will damage the meat structure and affect the stability of the product, and the system will require additional cleaning. It has to be just right.

Additionally, many products contain phosphate and salts that bind in water. The aim is to use the minimum of binding agent

while still retaining the required level of water within the product. It has to be just right.

Through many years of developing mixing technology GEA has perfected the process. And by measuring the torque within the mixer as the product is chilled, GEA engineers can help customers to hit the optimum level of chilling every time, taking the guess work away and allowing the MaxiFormer to run continuously for many hours without clogging. If customers experience difficulties in getting the mix right, GEA Food Technologists will work with them, until it's perfect.





Batch2Flow

Batch2Flow is a unique GEA solution for fully automated mix preparation and feeding the former.

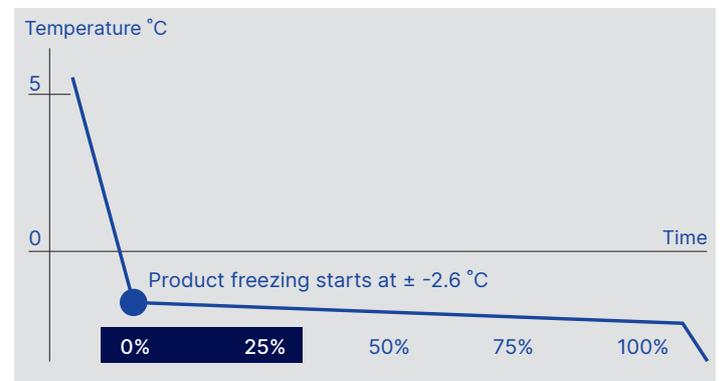
Batch2Flow - the missing link between mixing and forming

Now that the mix is perfect, it needs to be delivered to the forming machine in perfect condition, every time. With the right temperature and viscosity, to ensure trouble-free forming, even with high-speed rotary formers like the GEA MaxiFormer.

At GEA, we have devised an ingenious way to move the mix from the mixer to the MaxiFormer, while maintaining the product temperature and viscosity and to prevent contamination. It really is 'the missing link'. It is called Batch2Flow. It works on the principle that the mix should be kept perfectly and safely within the mixer until you need it. This allows the mix to be discharged gently onto a belt conveyor, using the mixer's rotating wings. As a result, it will be at precisely the right temperature and viscosity when it reaches the MaxiFormer.

No need of trollies, or cold store, and labor can be redeployed to more interesting and profitable operations. So, it saves money, creates a better working environment, eliminates the possibility of human error, has a better traceability, improves plant hygiene, and ensures a consistently high-quality end product.

Level of crystallization



Working towards perfection

Producing perfectly-formed products takes experience, patience and skill as well as the best technology. Innovating to develop new, exciting foods in a highly competitive market additionally requires creativity, flair and confidence. GEA understands the processes involved in developing and maintaining the entire plant and brings these qualities to every business partnership to help ensure long-term success.

Test facilities

GEA has a fully-operational test factory in Bakel, The Netherlands, to help customers develop processes and refine recipes before going into full scale production. Available equipment includes fryers, coaters, cookers, mixers and, of course, the GEA MaxiFormer. Additional test facilities are available throughout the GEA Group for a wide range of up and down-stream processes, all staffed by experienced GEA Food Technologists dedicated to achieving sustainable outcomes for their customers.

After-sales support

GEA has a global network of experienced technicians to provide installation, maintenance and spare parts services worldwide. Throughout the entire lifetime of a plant, GEA stays close, helping customers, fine tuning processes, and keeping a watchful eye over their production.

A better way

Buying GEA is more than just a wise decision. It provides access to the combined expertise of the whole GEA Group with many years of experience in every area of the food processing industry. It guarantees the finest technology backed by engineering excellence worldwide. It's simply better.





