



# GEA SmartPacker:

Setting the standard  
for protein packaging





# Excellence at every stage

The packaging of high-quality meat and seafood products deserves high-quality technology, and GEA has the experience to deliver excellence at every stage of the process.

The GEA SmartPacker is a vertical form, fill and seal packaging machine designed with reliability, flexibility and uptime at its heart, earning its place in the market as the ultimate solution for producers worldwide. The SmartPacker portfolio of products includes the SX400 and CX400 systems, which are also available in sanitary versions - highly sought after in the frozen food sector.

## Partnership for success

Technology is only half of the story. GEA's approach is collaborative, working with you to understand and provide for all of your needs and requirements. As a result, we offer a full range of services, bringing together consultancy, testing, technology, processing know-how and committed lifetime support to provide the ultimate partnership.

## An all-round solution for all your protein application needs: frozen, fresh, dried

For processors of meat, poultry and seafood efficient packaging is critical. The GEA SmartPacker range overcomes the unique challenges associated with packaging protein products such as chicken nuggets, shellfish, cut or formed chicken pieces or even whole birds, providing the ultimate solution in efficiency, precision and reliability.

The bagger is available in intermittent, continuous, high-speed and dual-drive executions, with a choice of bag formats, smooth film transport with optimal tracking, and re-closable options.

## Reliable, flexible and cost-effective

How does the GEA SmartPacker help meat, poultry and seafood processors excel?

- Boost sales with a range of portion sizes and outstanding shelf appeal on the same machine
- Protect your product with the innovative, zero perforation air-expeller, capable of running at full line speeds
- Produce multiple products on a single system for ultimate production flexibility
- Ensure maximum productivity and the lowest possible total cost of ownership (TCO)
- Test your products ahead of purchase for optimal system selection
- Comply with market standards for high sanitary design

# Inspired design for ultimate packaging efficiency



The GEA SmartPacker has been expertly designed and engineered to ensure product is delivered to the bag in the most efficient way possible. Brimming with innovation, the system includes:

- A product vibration device to ensure an even spread of the product within the packaging
- A blockage detection system within the forming tube and an extremely sensitive 'product in seal' detection system for minimum unscheduled downtime and waste
- The system automatically opens the cross-seal jaws as soon as a foreign object or product particle is detected to help avoid contamination or damage of the cross-seal jaws and knife.

## Smooth operation even in humid environments

Film transport and jaw movement is monitored to provide an accurate and consistent bag length, smooth operation - even with delicate films - and the minimum of mechanical strain, ensuring long component life. In humid environments the rigidised shoulder and forming tube use vacuum belts to provide frictionless transport that is unaffected by condensation. GEA's unique process is designed to prevent film and seal contamination, thereby protecting seal integrity.



### Robust, sanitary design for harsh working environments ensures increased operation efficiency

Frozen products require robust production line equipment that can withstand the harshest working conditions.

Our SmartPacker has been designed and engineered with intelligent materials suitable to handle the heavy impacts experienced during these packaging operations and provide extended years of service.

The GEA SmartPacker has proven outstanding performance levels across a wide range of applications, achieving over 98% uptime. Its accessible sanitary design, with easily exchangeable wear parts and smooth sloping surfaces for easy cleaning, ensures efficient operation, low maintenance costs and ultimate reliability.

### Gentle handling during high-speed packaging operations

Products such as chicken portions, fish fillets and bone-in meats such as ribs, can easily damage delicate films during high-speed packaging operations. To mitigate this issue, GEA engineers have developed bespoke catching plates that reduce the impact on the bag and ensure that they are evenly filled.



### Adjustable vertical movement for better flexibility and productivity

Flexibility is key within modern processing operations, particularly where multiple products are being produced on a daily basis. A variety of bag lengths will be required in line with changing demand, and systems must be adaptable with minimal operator input or adjustment to ensure maximum uptime levels can be maintained.

The GEA SmartPacker CX400, for example, can accommodate variations in bag length as part of a continuous process. This is achieved by automatically changing the vertical movement to match the bag length presented. This adjustable vertical movement increases production by over 10% when compared with conventional systems.



# Residual air reduction without compromising on speed

Cost-efficient production in frozen food applications requires both reliable equipment and removal of residual air from the bag. With the GEA SmartPacker we offer our customers three solutions, depending on their specific requirements:

- Visual perforation - applied to the bag by means of puncturing or delicately creating small holes in the film. These can be performed by needles, by knife or using a high-speed puncturing unit.
- Non-visual perforation – undetectable by eye - applied in the cross seal of the bag. Interrupting the cross seal on several spots in combination with standard air expellers decreases the volume of the bag by expelling residual air.
- For non-perforated bags, GEA has developed an airexpeller which, by absorbing the shape of the product, near the sealing jaws expels even more residual air from the top of the bag without compromising on line speed. As a result, bags have the correct level of air to evenly divide the product before entering the casepacker, maximising the number of bags in a box.



# Advanced sealing technologies



Sealing systems from GEA allow pillow bags to be produced from low-cost polyethylene and laminate films without any risk of the film sticking to sealing jaws. With GEA's SmartPacker, the process is hygienic, cost-effective and fast.

## PTC

Instead of using heated jaws to create a cross seal, press-to-close (PTC) uses sealing wires that are held at a constant temperature rather than being continually heated and cooled. This gives the wires a longer lifespan, achieves a more consistent seal and, therefore, a better-quality product. The cutting knife that separates the filled bag from the film roll is kept cool to prevent sticking.

## ITC

The novel induction welding system featured on the GEA SmartPacker series provides all of the benefits of its proven PTC-sealing system and much more besides. With uptime and reliability front-of-mind, the ITC system uses a single connection, which drastically reduces the number of components and connectors required as well as the probability of unscheduled downtime events. Reliability is enhanced as a result, alongside the ability to use thinner film types in comparison to other systems on the market, further reducing material costs. ITC also uses a fraction of the energy required when compared to conventional sealing systems for PE-film material, without losing speed when heating.



# GEA SmartPacker SX/CX400

## Sanitary design for optimal product protection

Increased demand for sanitary systems, particularly in the frozen food sector, means that sanitary versions of the SmartPacker SX400 and CX400 are now available to our customers. Featuring stainless steel film feed with sealed bearing rollers and sloping surfaces, the sanitary design allows water to run off easily. The vacuum table is replaced by a sanitary splicing table, and an optional IP65 rated electrical cabinet is also available.

The GEA SmartPacker comes with a special surface treatment across the 316 stainless steel frame and film feed, resulting in an easy care, dirt and contamination repellent surface. Our famous maintenance-friendly sealing mechanism is enclosed in the boxed frame.

## Summary

- Improvement of uptime and reliability by using minimal amount of parts
- Reduction of product loss from downtime
- Easy to install and exchange
- Cost savings in film and energy usage
- Accurate and fast temperature control

## Reference Data

	GEA SmartPacker CX400	GEA SmartPacker SX400
Bag length (max.)	550 mm	550 mm
Bag width (min./max.)	80/400 mm	80/400 mm
Dimension H x W x D	2020 x 1280 x 2185 mm	2020 x 1280 x 2185 mm
Maximum Speed (bags/min.)*	120	100
Core diameter film reel (min. max.)	70/77 mm	70/77 mm
Outer diameter film reel. (max.)	500 mm	500 mm

\* Without stripping. Depending on product, film and dosing equipment.



# Increasing visual impact with GEA SmartPackers

Consumers buy with their eyes, so visual impact on retailers' shelves is important. The flexibility to create a wide range of bag types, from standard flat pillow bags to complex quatroseal or zipper bags, using mono-layer or laminated film compositions, is essential to meet the needs of every product and producer.

But presentation isn't everything. Packages must also protect the product and provide sufficient space to include essential information. Through its many years of experience in vertical packing applications, GEA helps customers to choose the most economical type of pack and film material that is also best for the product.



*Pillow bag*



*Gusset bag*



*Blockbottom bag*



*Quatroseal bag*



*Doystyle bag*



*Envelope bag*



*EasyDoy bag*

# Test before you purchase

## Technology center

Through our fully operational test facilities in the Netherlands, we help customers to develop processes and refine recipes before going into full scale production. Test facilities are available throughout the GEA Group for a wide range of upstream processes, all staffed by experienced GEA food technologists dedicated to achieving sustainable outcomes for their customers.

## A better way

Buying GEA technologies for the meat, poultry and seafood industries, is far more than just a system purchase. It provides access to the combined expertise of the whole GEA Group, with its many years of experience in all areas of the food processing industry. Our customers are guaranteed the finest precision-engineered technology, backed by world-class service and support worldwide.



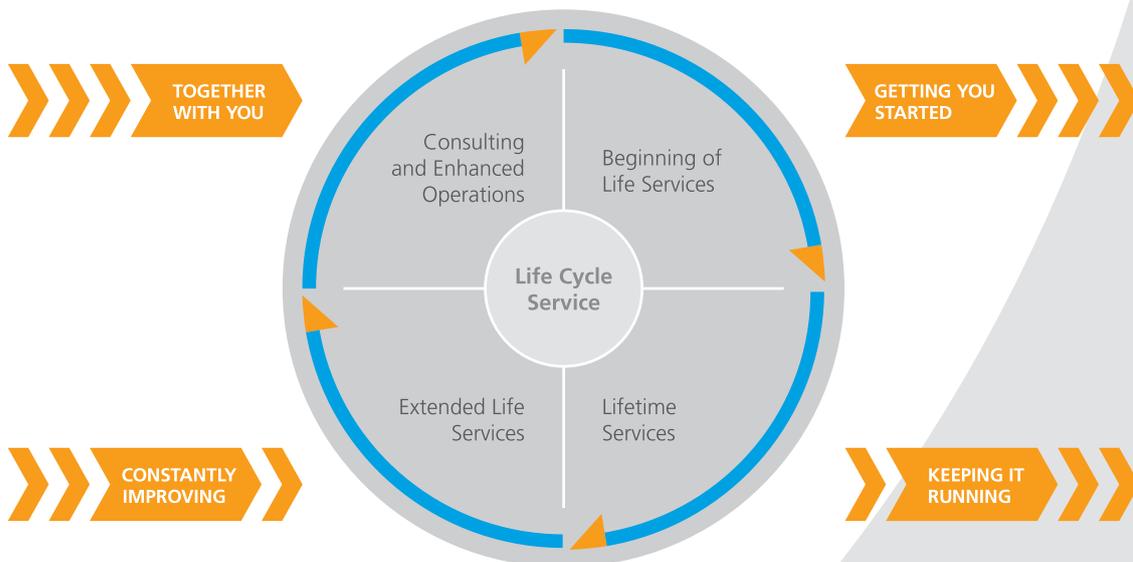
# GEA Service – For your continued success

## GEA Service – For your continued success

GEA specialists maintain and improve the performance of your equipment or line, to maximise processing quality, reliability, efficiency and safety throughout the entire product life cycle. We offer flexible service level agreements that can be tailored to match your requirements and budgets. We also offer the option to book single audits, through which our engineers and technicians will carry out a pre-agreed plan, and compile a thorough report.

Preventive maintenance keeps lines and equipment safe and efficient and extends working life to safeguard availability. Upgrades improve performance, reliability and production capacity. Modernisation can save on water and energy usage and integrating the latest automation and control solutions boosts output and yield, reduces waste and minimises resource use and the need for manual intervention. We ensure fast and reliable repair services, and our service hotline is available 24/7.

We only use original spare parts for maintenance and repairs. All repairs, new configurations or upgrades are tested for safety, quality and performance, and we ensure lines are returned to running at full speed and optimal efficiency as fast as possible.





## We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is included in selected MSCI Global Sustainability Indexes.

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