GEA Preparation portfolio

Maximizing value, minimizing costs

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When global competition and growing legislation eat into your margins, you need to maximize the value of your raw materials. GEA grinding, mixing, cutting, emulsifying and other preparation equipment will help you optimize your product quality, increase operational efficiency and manage the price per kilogram.

Single machine or complete line
Whether you need a single machine to boost existing line performance or a complete solution for a new factory, GEA is the right partner. Built for effective processing of meat, poultry, fish and other food products, our equipment ensures that you maintain quality and satisfy your customers.

Applications experience
We have broad experience in applications ranging from cooked emulsified sausages and fermented sausages to ground meat and formed products, such as hamburgers and chicken nuggets.

Taking you forward
Your business needs are our starting points - from consistency, hygiene and safety to sustainability, variety and cost of ownership. Our machines deliver high yield, are easy to operate and clean, and have a long operational life. You also have access to training, maintenance programs, equipment and software upgrades, performance benchmarking, expert diagnostics, applications support, and line- or factory integration.

GEA offers a comprehensive range of equipment to suit your unique needs, whether it be for fresh or frozen meat, vegetables or cheese. Designed with flexibility and food safety in mind, our versatile equipment can be quickly adapted to a wide variety of functions and food. Ideal for sausages, ground meat products, formed cooked products, seafood and vegetarian products.
GEA PowerGrind: The new standard in grinding

The GEA PowerGrind represents a new generation GEA grinders with improved capacity, hygiene and safety performance. These aspects are combined with high robustness, and modularity, making the GEA PowerGrind a reference in its class.

Wide choice
Whatever your application or need, GEA’s full range of heavy-duty, industrial grinders is sure to meet it. Our grinders cover coarse (pre-grinding) to fine grinding, and are available for fresh meat, pre-broken frozen meat and hard frozen blocks. GEA grinders are also available with an effective hard particle and bone separation unit with extremely low yield loss.

Perfect fine and coarse grinding of fresh and/or frozen meat
- Frozen block grinding down to -25°C with minimum dust and fines
- Large infeed area that prevents bridge building
- Hinged lining and separate side door for perfect sanitation
- Excellent particle definition and minimum fat separation
- Unique two-worm design with independently adjustable worm speed
GEA ComboGrind

GEA ComboGrind and ComboGrind Twin
The GEA ComboGrind is a robust industrial grinder for coarse and fine grinding of fresh meat, fish and pre-blends. It features an infeed hopper with agitator that holds up to one ton (whole Combo- or Eurobins) of pre-ground meat. It is ideal for hamburgers, sausages and other quality ground meat products.

High capacity grinder
• Ideal for fresh meat
• Coarse and fine grinding
• Large buffer volume
• Consistent product appearance
• Options include hard particle removal and booster pump
GEA CombiGrind: Flexible mixer/grinder

The GEA CombiGrind mixer/grinders are ideal for mixed and ground meat products such as beef burgers, case ready ground meat and many sausage products. GEA CombiGrind has independent mixer wings and PLC controls, which makes this grinder a highly performant piece of equipment.

Intermeshing mixer/grinder

- Gentle and highly effective mixing
- Consistent grinding quality
- Easy operation, handling and sanitation
- Compact design
GEA ProMix – UniMix

<table>
<thead>
<tr>
<th>Mixing range</th>
<th>GEA ProMix</th>
<th>GEA ProMix</th>
<th>GEA ProMix</th>
<th>GEA UniMix</th>
<th>GEA UniMix</th>
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<tbody>
<tr>
<td>Volume (Liters gross)</td>
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<td>x</td>
<td>x</td>
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Multifunctional mixer, also available in vacuum execution

The GEA UniMix twin-shaft mixers are ideal for extended products such as hamburger patties, meatballs, luncheon meat and ground sausages, and pre-mixing for wiener and frankfurter emulsions. Mixing flexibility ranging from gentle stirring to intensive protein extraction mixing. The effective mixing action with high peripheral wing speed gives good protein extraction, uniform distribution of spices, additives and liquids, and provides effective salt activation.

GEA Analyzing Equipment

With GEA Analyzing Equipment based on NIR (Near Infra Red) online continuous fat analysis, the results for fat, moisture and protein become available as soon as production stops, thus minimizing delays. Based on these results, an integrated standardization module calculates the amount of fat or lean needed to reach the required target.
GEA CutMaster: The reference in cutting

GEA CutMaster: also available in vacuum execution
The GEA CutMaster cuts, mixes and emulsifies all different kind of sausage products from coarse to very fine. It is also suitable for wide range of poultry, fish confectionary or vegetarian products, processed cheese and many basic products in the food processing industry. Optionally, products can be cooked or cooled. All processes take place within the GEA CutMaster and are, therefore, independent from peripheral equipment.

Multifunctional cutter
The GEA CutMaster provides high yield, high efficiency particle reduction and mixing and emulsifying capabilities. It handles many different types of fine and coarse sausages in very short processing times with a high filling level (95%).

The GEA CutMaster has a cutting speed of more than 160m/s and can be supplied in bowl capacities of 200, 325, 500 and 750L bowls. Optionally, products can be cooked or cooled. All processes take place in the CutMaster and is, therefore, independent from peripheral equipment.
GEA CutMaster DUO

- Extremely short processing times
- Specially designed for salami-type of products
- Two cutting systems for minimum processing time
- Very high capacity minimizes productions costs
- Variable knife speeds for optimum product quality
- Fully automated program operation

GEA Raw Sausage Filling Line

This equipment is ideal for producing state-of-the-art Salami, when combined with GEA CutMaster DUO.
GEA EcoCut

**GEA EcoCut 225**
*Multifunctional emulsifier*
- Extremely fine to coarse emulsions
- Automated knife adjustment system
- Bulk emulsion in line applications
- Flexibility to produce small batches
- GEA EcoBes sorting device

**GEA EcoCut CAP 2**
*Vacuumized emulsifier for in-line production*
- Constant product structure and temperature increase
- Low cost of ownership
- Hard particle removal
- TemBiVac unit regulates temperature, maximizes binding and vacuumizes the emulsion, making it extremely stable
- Easy cleaning
- Flexibility in product structure from coarse to extremely fine
GEA VanePump Double Chamber (DC)
Heavy-duty DC pump
- Pumping of high viscosity products
- Gentle and non-smearing
- For products with bones
- Large variety of hoppers
- Vanes of the pump cut the meat

GEA VanePump Single Feed (SF) & Double Feed (DF)
Special pumps SF & DF
- Integrated feed screw and pump drive with only one transmission
- Buffer function
- Closed pump unit without shaft sealings
- Easy sanitation and inspection
- All round pumping applications
GEA Loading & Handling equipment

Using buffering and belt transport equipment to distribute emulsion, premix or ground meat, eliminates the need for manual handling and storing of dozens of trolleys in the preparation area. A press of a button transports the product to the next stage in the process.

GEA ScrewLoader
With top of the range sanitary execution, the GEA ScrewLoader is designed for inclined or vertical transport of ground, fresh or frozen meat raw material with a minimum of mechanical impact. Its height and buffer capacity can be customized according to the specific requirements of the surrounding process and equipment. Numerous options make the GEA ScrewLoader a flexible piece of equipment, which can be adapted to various line engineering requirements or dimensions and footprints of surrounding equipment.

GEA BeltLoaders
The heavy duty modular GEA BeltLoader is ideal to load fresh and frozen material into grinders, whereas flat and V-shaped belts are ideal for transporting ground meat and sausage emulsion. Optionally equipped with metal detection systems.
GEA ColumnLoader
The ColumnLoader 300S is designed for emptying 200 and 300 liters trolleys. The ColumnLoader offers full electrical control with motor overload protection, panel with up and down switches as well as top and bottom limit switches for the working cycle of the ColumnLoader. “Hold-to-run” function for lifting up and lowering. Also available in 1000S and 1200D for big bins.
- Robust and reliable
- Low cost of ownership
- Hygienic and easy to sanitize

GEA Emulsion Silo
The Cylindrical Emulsion/Batching Silo is designed for holding and discharging Wiener type sausage emulsion or sausage premix with a minimum of mechanical impact. The silo doses the product onto a BeltLoader for further transport. The silo can also be equipped with an integrated pump unit allowing transport of sausage emulsion, premix and fresh ground meat to various destinations.
- Stores and handles sausage emulsion
- High volume with small footprint
- Robust and reliable
- Easy to dismantle and clean

GEA Batching System
The GEA Batching System is designed for holding and dosing ground fresh or frozen meat raw material with a minimum of mechanical impact. Also available with agitator.
- Handles both fresh and frozen ground raw material
- Robust and reliable
- Low cost of ownership
- Hygienic and easy to sanitize
GEA Line Solutions

GEA offers fully automated production lines, ensuring consistent high quality products and minimizing labor costs with full traceability. GEA is recognized worldwide as a leading supplier of complete preparation solutions for processed meat, poultry and fish as well as other products.

We can adapt the basic configuration to specific requirements and needs:

- Emulsified products like sausages
- Ground meat products
- Dry, fermented sausage products
- Formed coated products

Major benefits

- Fully automated production lines
- Consistent high quality products
- Control of emulsion density
- Full traceability
- High output at continuous operation
- Easy cleaning: All lines shown on these pages have been installed at various customers’ sites and are operational to everybody’s satisfaction.

GEA ColdSteam M

The GEA ColdSteam M line combines a PowerGrind with one or 2 GEA ColdSteam M Mixers - depending on your required production capacity - and an EcoCut 225. This set-up gives you the flexibility of working with frozen and / or fresh material with full control over the temperature, which is extremely important for the emulsifying process.

Major benefits ColdSteam M line:

- 100% frozen input
- Controlled starting temperature for emulsifier
- Constant texture and bite
- Top and easy to use hygienic design
- Substantial reduction of manual handling
- Faster reaction to customer demands
**GEA CutMaster line**

The GEA CutMaster line is a combination of a PowerGrind, featuring one GEA CutMaster depending on your required production capacity. This set-up gives you the flexibility of working with frozen and/or fresh material with full control over the temperature, which is extremely important for Frankfurter sausage types.

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**GEA Multipurpose emulsified sausage line**

Next to aspects of quality, hygiene and flexible production, traceability plays an increasingly important role in the food processing industry. GEA offers a highly automated process line for sausages, that generates all necessary documentation at the push of a button.
Flexible and multiple parallel recipe sausage line

Product type and quantity per batch is set in an automated system. The frozen meat and the fresh meat is delivered in 1000L bins to fill the silo banks, the bar codes are scanned, after which the meat is unloaded into the grinder. The meat is ground and transported to the silo bank through a screw-conveyor with an integrated fat analyzer. Each silo is equipped with load cells and the fat content per silo is known. Based on the meat that is fed, the automated system calculates the optimal batch composition, taking fat content and meat temperature into consideration. The calculated quantity of meat is transported from the silo bank to the belt that feeds the CutMaster V. According to the recipe, the CutMaster is automatically fed step by step by means of a retractable belt system. Liquids and dry ingredients are added. The CutMaster V runs the pre-programmed recipe until the right structure end emulsion temperature has been reached. The integrated vacuum system ensures a constant density and also enhances fresh product appearance and color stability. The stuffers are equipped with level sensors that control the transport of the finished emulsion. When the CutMaster V is unloaded entirely, the automated system will restart the sequence until the set product quantity has been reached.

Major benefits
- Maximum flexibility and multiple, simultaneous recipes
- Control of fat content of the product, including supplier evaluation
- Choice of 8 different types of meat per recipe
- Emulsion density control
- Suitable for both very fine and coarse types of sausages
- Traceability per batch
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.

GEA Netherlands
GEA Food Solutions Bakel B.V.
Beekakker 11
5761 EN Bakel, Netherlands
Tel +31 492 349 349
gEA.com/contact
Fax +31 492 349 416
gEA.com