

# High quality cuisine for your pet

Meat preparation technology for wet, dry and raw pet food





# Meat preparation technology from GEA

To stay ahead in the competitive pet food industry, you need reliable equipment that enables you to benefit from new business opportunities. With roots that go back to the very start of the food processing industry, GEA is in the privileged position of having over 80 years of experience. Our expertise means we have become true specialists in the areas in which we are active, like meat preparation technology for wet, dry and raw pet food.

#### Serving the pet food industry

Each solution is tailored to specific process needs, factory conditions and business objectives. We design our equipment to lower the cost per pound by enabling you to create quality products using competitively priced raw materials and efficient processes. We have a unique understanding of the pet food market and have installed numerous complete lines worldwide, all developed hand-inhand with customers. We also supply packaging solutions, developed to keep your products fresh longer, reduce transport costs and provide eyecatching packages for supermarket shelves.

#### Meat preparation equipment and packaging solutions

Covering every step of pet food production, we have equipment for pre-breaking, grinding, mixing, batching, emulsifying, analyzing, pumping and handling. The equipment is complemented by advanced software and packaging solutions that are in line with the latest retail trends.

#### Round-the-clock support

With a strong global presence, GEA is always close at hand to offer you service and support 24 hours a day. Our teams of highly skilled engineers provide extremely efficient maintenance and upgrading. Moreover, with customized service contracts, excellent field service and a reliable supply of spare parts, wear parts and tooling, we work to make sure your pet food production line runs smoothly.

#### Taking you forward

- Single supplier for complete meat preparation technologies
- Extensive process and application know-how
- · Innovative equipment with extensive line automation possibilities
- Comprehensive customer support and service contracts
- · Software for monitoring, controlling and optimizing the process

Whether you need a single machine to boost existing line performance or a complete solution for a new factory, GEA Food Processing & Packaging is the right partner.

We are with you, every step of the way; from testing ideas to providing the machines and lines to put them in production. We'll help you turn inspiration into income with state-of-the-art food processing technology. GEA has all the ingredients to help you lead in the global pet food industry with automated meat preparation lines or single machines that offer the flexibility and versatility you need in a batch process.

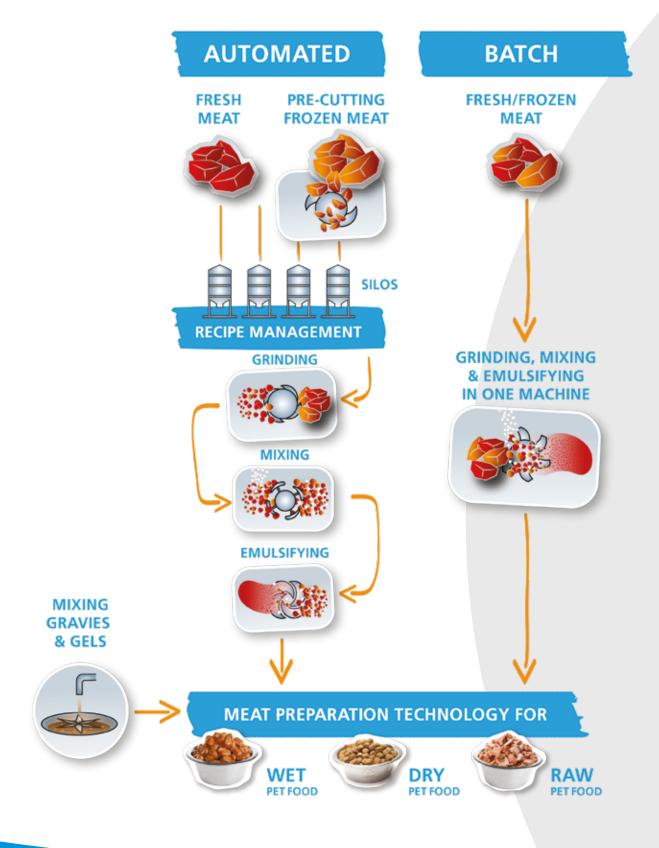
#### Automated meat preparation for pet food

- · Pre-crushing of frozen meat
- Powerful grinding
- · Automated handling systems
- · Tempered mixing of meat and ingredients
- · Pumping of high protein mixes
- Emulsifying

#### Meat preparation for pet food

· Cutting, mixing and emulsifying in one machine (GEA CutMaster)

# Pet food production



## Automated meat preparation

GEA offers fully automated production lines for meat preparation, providing consistent quality products and minimizing labor costs. Using buffering and belt transport equipment to distribute emulsion, premix or ground meat, eliminates the need for manual handling and storing.

#### Heavy-duty pre-crushing of frozen meat

Efficient pet food processing begins with crushing of frozen raw materials. The GEA BlockCrusher is fast, versatile and available in different sizes to break individual or multiple blocks. or complete pallet loads. Materials enter the machine via a conveyor belt or a lifting device. A clawed rotating shaft breaks the frozen material against a bridge of fixed claws, producing fist-sized pieces ready for high-capacity grinding.

- · Single or double shafts
- · Extremely sturdy design
- · Flexible capacity due to variable shaft speed
- · Flexible design of hopper extension and rack
- · Significantly reduced noise levels

#### Powerful coarse and fine grinding

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

- · High capacity grinder for fresh and frozen products
- · From coarse to extremely fine grinding
- Auto reverse function feeder auger that optimizes product flow

#### Handling systems

When it comes to turning individual machines into an integrated line, while also making the most efficient use of your available production space, handling equipment such as conveyors, loaders and silos play crucial roles. Equally important is the expertise behind the handling and transport system.

- · Optimized design for different products
- A variety of sizes and angles
- · Mobile or fixed installation
- · Allows for perfect integration with other equipment



#### Tempered mixing of meat and ingredients

The way in which the product is mixed is critical to the success of the process downstream. Through many years of developing mixing technology, GEA has perfected the process in the GEA ProMix.

- · Robust, very reliable and flexible mixer
- · Excellent distribution and absorption of liquids, spices and additives
- Efficient cooling system with optimal process control for formed products







#### Pumping of high protein mixes

The heavy-duty double-chamber GEA VanePump DC has a breaker screw infeed that enables pumping and transport without pre-breaking, even with frozen blocks and bones. The pump is also ideal for pump-grinder and deboner infeed, and gives high-pressure, pulsation-free performance with all kinds of raw materials for pet food preparation.

- Pumps fresh and frozen raw material and bones
- · High pressure and high capacity at low speed
- · Double chamber provides constant pulsation-free flow
- Low maintenance and low cost of ownership
- · Breaks and pumps frozen product

#### **Emulsifying**

The GEA EcoCut 225 is an efficient emulsifier for coarse and fine emulsions for paté, heatset chunks, slurries for extruded dry pellets and similar products. Its automatic knife-tensioning system gives a long life to wear parts. Highly flexible, it is suitable for large bulk capacity as well as smaller just-in-time batches.

- Production flexibility from coarse to extremely fine particle reduction
- · Low cost of ownership
- · Consistent product quality
- Product structure, particle size and temperature increase are carefully controlled

#### Gravy/gel systems

The GEA ScanGravy is an advanced mixing system with accurate temperature and cooling control. It continuously stirs the gravy or gel during storage to keep the mix sediment free. Based on modular units, you can expand capability by adding storage tanks, exchanging pumps and mixing venturi to accommodate different viscosity mixes.

- · Excellent mixing of light gravies up to thick gels
- · Modular and flexible design
- Fast and easy inspection and cleaning
- Low cost of ownership
- · Improved yield due to optional gel cooling









### One machine does it all

GEA Food Processing has been setting the standard for bowl choppers in the meat processing industry. The GEA CutMaster has become the reference in the industry.

#### Cutting, mixing and emulsifying in one machine

The GEA CutMaster cuts, mixes and emulsifies all different kind of meat products from coarse to very fine. Optionally, products can be cooled or cooked. All processes take place within the GEA CutMaster and are, therefore, independent from peripheral equipment.

- · Flexibility to handle many different types of products
- High productivity and reliability
- · Excellent product quality
- Fast TopCut VSH knife-head system
- · Running under vacuum for denser emulsions without air inclusions
- · Very high filling level (up to 95%), fast loading and unloading









#### Service

- · Installation, commissioning, training
- Spare parts, corrective maintenance, preventive maintenance
- Upgrades/modernization/optimization, predictive maintenance, factory-rebuilt machine
- Performance contracts, on-site project support, service software products

#### Freezing

- GEA IQF Tunnel Freezer: designed for hygienic requirements
- High yield and minimum energy consumption
- Modular configuration for easy integration into your processing line



# **Trusted solutions for** pet food from GEA

GEA has developed a comprehensive range of technologies, equipment and know-how to configure and install solutions for pet food manufacturing plants.

#### Test facilities

- Process development and validation
- Fully scalable test equipment for processing including freezing and freeze drying
- Industry leading know-how, spanning early stage product development through to final process refinement

#### **Process Engineering**

- · Process design and engineering
- Project Management
- Plant installation and commissioning



#### Freeze drying

- Industrial solutions for efficient freeze drying of raw, cooked meat and mixed products
- · Highly efficient RAY freeze driers allowing products to keep their original properties and uncooked appearance
- · RAY pilot plants designed for new product development and scale up

#### Automation & control systems

- · Process automation and MES solutions
- Integrated company-wide network systems with corresponding MES
- Data capture and evaluation







#### Packaging for dry pet food

- GEA SmartPacker: vertical form, fill and seal packaging machine
- Consistent high quality of produced packages
- Reliable and smooth film transport
- · Quick film reel and bag format exchange

#### We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is one of the largest technology suppliers for food processing and a wide range of other industries. The global group specializes in machinery, plants, as well as process technology and components. GEA provides sustainable solutions for sophisticated production processes in diverse end-user markets and offers a comprehensive service portfolio.

The company is listed on the German MDAX (G1A, WKN 660 200), the STOXX® Europe 600 Index and selected MSCI Global Sustainability Indexes.