



GEA Bakery Solutions



GEA becomes a major force in the bakery sector

Together, more than 100 years of experience in the bakery sector.

GEA is one of the most important organizations worldwide specializing in the production of high performance, complete solutions for the bakery industry, tailor made for every customer. The experience comes from the acquisition of the two Italian companies Comas and Imaforini: trusted suppliers to the world's most advanced bakery factories.

The cooperation with leading companies in this sector is a feature that makes GEA stand out, guiding the customer towards better technical and technological choices to help meet desired production requirements.

GEA is as a partner of excellence, committed to the needs of its customers.



Our experience at your service



Cakes



Cookies / Biscuits



Pies / Tarts



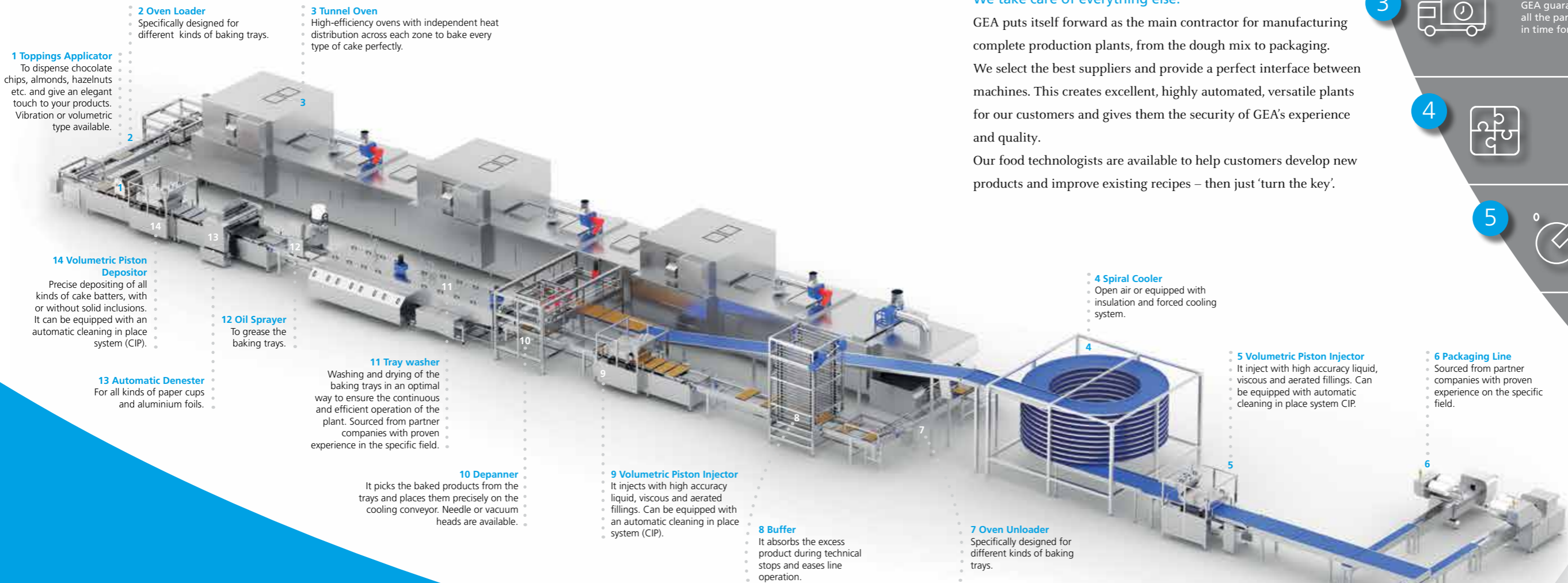
Crackers



Layer cakes



Snacks








Just turn the key.

We take care of everything else.

GEA puts itself forward as the main contractor for manufacturing complete production plants, from the dough mix to packaging. We select the best suppliers and provide a perfect interface between machines. This creates excellent, highly automated, versatile plants for our customers and gives them the security of GEA's experience and quality.

Our food technologists are available to help customers develop new products and improve existing recipes – then just 'turn the key'.

Why Turnkey Solutions?

- 1**  **A single business partner:** having GEA as the only business partner means placing a single order for the complete plant and clearly defining the responsibility for the achievement of the end result.
- 2**  **Project coordination:** our engineers coordinate and supervise the design engineering and the manufacturing of all the machines on the plant.
- 3**  **Delivery within expected times:** GEA guarantees the customer that all the parts of the plant arrive right in time for installation and running.
- 4**  **Integration:** we will take care of the mechanical and electrical interfacing of all machines.
- 5**  **Start-up:** Our staff use their experience to coordinate the project enabling the earliest possible start-up time.

Cake lines



The depositing, injecting and decorating of cakes and cup cakes has always been our great passion.

The product range from GEA includes the compact piston depositor and multi-piston depositors, used on industrial tunnel ovens and running at very high capacity production. In addition to volumetric depositors and injection machines, GEA offers a series of complementary machines to automate the complete production process, such as cup denesters, greasers for baking trays and decorating units before or after the oven.

It is possible to produce different types of cakes on the same line owing to simple change-overs and the automatic washing of the depositors through an optional CIP system.

Our extensive experience, combined with the use of the most advanced technologies and with a wide range of accessories (e.g. servo-motors, co-injection, independent deposit, etc.) makes GEA a leader in the market.



Pie lines

Technical perfection for a perfect pie

This concept is the basis for the whole range of GEA pie machines. Our solutions can be tailored to the needs of both high capacity plants and smaller-scale production lines. All the lines are designed to achieve maximum production flexibility due to the easiness and quickness of product change-over, by

maintaining the consistent depositing and blocking accuracy that always identifies GEA products. The production of empty pie shells can take place inside trays or foils and is enriched with several kinds of fillings. A range of accessories is also available for the molding of personalized lattice tops or lids.



Soft biscuit and cookie lines

We know how

The world of softdough biscuits includes a family of products whose manufacturing is based on the rotary molding process. The high-capacity rotary molder can be integrated with a co-extruder with individual lobe pumps and a range of downstream units, including decorating rollers, glazing machines and depositors for creams, jelly or granular products. The result is

a fully customized, complete production line for a huge variety of rotary biscuits, wire-cut cookies, smooth biscuits, two-color filled cookies and fig-bars. The GEA biscuit and cookie lines offer the highest performance and excellent accuracy in every single biscuit, guaranteed by the experience that GEA has acquired over the years and by the constant effort to satisfy customers.



Hard biscuit and cracker line



Beyond standard performance

Hard biscuits and crackers are manufactured on a GEA forming line consisting of a sheeter, a lamination unit and a set of gauge rolls. Our experience shows that more regular products are obtained by gently processing the dough sheet. The dough mass formulation, and the way it is handled throughout the gauging process, are the key factors to avoid stressing the dough sheet.

The line is completed with a dough sheet relaxing web, a rotary cutter, a scrap pick-up machine, a scrap return conveyor and an oven panner. Devices such as a sugar/salt/seasoning sprinkler and a glazing unit can be installed on the line to increase the variety of products. GEA supplies production lines up to 2,000 mm in width, far beyond the current industry standard.



Layer cake lines



The right degree of automation for every customer

GEA layer cake lines meet the needs of those companies that produce several types of fresh and frozen cakes daily. In fact, each line is designed to offer the maximum flexibility and to maintain the highest degree of automation. In these machines, GEA design engineers have given particular attention to effective

sanitation, which is fundamental for these applications. All the parts can be easily removed and washed with a water jet. GEA plants worldwide all have different degrees of automation and run at up to 5,000 cakes/hr.



Pizza lines



Pizza lines 'made in Italy'

Italy is the land of pizza and so GEA has developed great experience in this field by engineering and manufacturing lines for laminated or blocked pizzas. Topping is performed by either targeting the deposit (target system) or by covering the surface completely (waterfall system) with ingredient recovery units. The range of machines, used before and after the oven, consists of waterfall and spraying depositors for homogeneous tomato

sauce; finger depositors for cheese, IQF vegetables and oregano; and water sprayers to prepare the pizzas for freezing. GEA designers have paid special attention to the sanitary standards of the machines which are made of stainless steel and certified food-grade materials. Easy change-overs allow the production of different types of pizza: from the thick American pizzas to the traditional Italian.



Snack lines



Top quality lines for better snacks

Baked snack products is a growing market sector. The modular design of snack forming units allows the creation of different configurations to better meet bakeries' needs and fit into the space available. Snack lines are composed of a sheeter followed by one or more gauge rolls, a rotary cutter and a scraps pick-up conveyor. Our purpose-built equipment allows the development

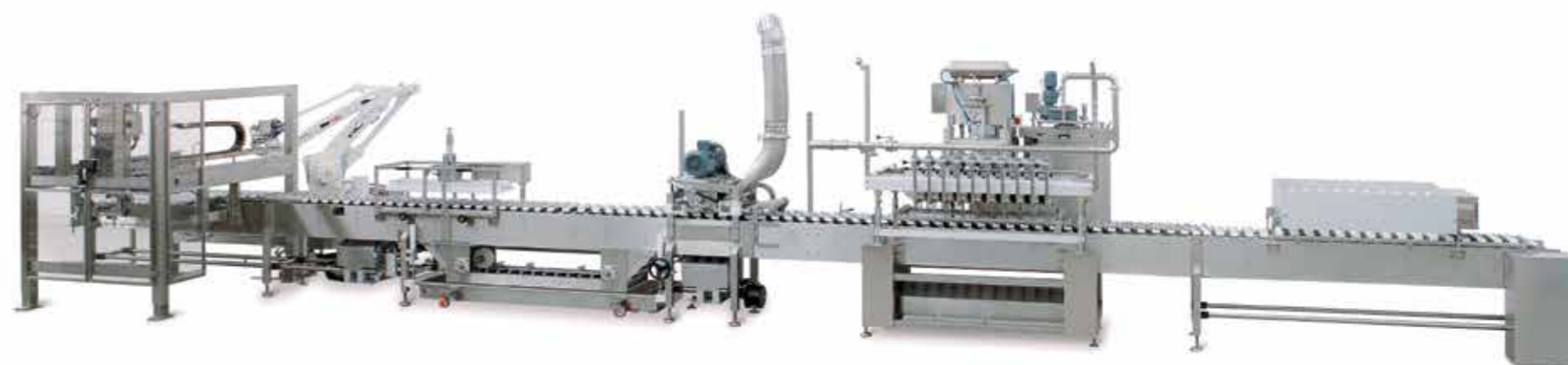
of processes capable of making innovative baked snacks (not fried), such as potato and corn chips, for the health-conscious consumer. Additional devices, such as sprinklers to top the product with salt, sesame and flavors and the oil sprayer, can be added as necessary.

Special lines for bread processing

Adding value to your bread

GEA machines have a range of special features designed to increase the commercial value of bread products for customers. Working closely with the bread industry, GEA has developed a system that can cut and then fill baked baguette or ciabatta loaves with a range of different sauces. The system can be integrated into an existing baguette processing line, and offers options including 'no product' and 'no fill'. A recirculation system

minimizes waste and reduces the downtime when cleaning. Production capacities can vary from 5,000 to 25,000 pcs/hr. GEA also offers automatic production lines for gluten-free bread and a volumetric depositor-extruder machine for depositing rye bread doughs and sticky dough mixes that are hard to handle.



Tunnel ovens



... and now let's bake it!

The baking process turns the dough into a tasty product. Cakes, biscuits, pizza and crackers have different baking needs in terms of heating methods and temperature profiles. GEA can supply a wide range of tunnel ovens with the following heating systems: direct gas fired, radiating (cyclotherm), convection and electric, which can be combined into hybrid configurations. Such configurations, unlike traditional single heat transfer systems, enable more flexibility in the baking process: different products processed in the same oven; improved texture; and a more uniform color of the baked product. The care of the environment

has always been fundamental to GEA. Through constant innovation we have been able to reduce the environmental impact of our plants by providing consistently significant fuel savings and the lowest possible emissions to the atmosphere.



4 ways to improve energy efficiency.



Automation



Process automation

A series of special machines complete the GEA range to increase the level of automation within the plants: robotized systems for the handling of molds and products, tunnel oven loading/unloading systems, automatic cooling systems, tray feeding

conveyors, automatic cup denesters, tray greasers and special depositors for granular, powdered and wet products. This technology helps to provide our customers with the highest level of automation and versatility available.

Customer satisfaction is GEA main objective



Bakery Experience Centre

Experienced food technologists at your service.

The GEA Bakery Experience Center (BEC) consists of technological and testing labs where various production tests are carried out. GEA skilled personnel assist and guide customers to choose the technology and production processes that prove to be the most suitable for each particular product, using data gathered from specific machines. The BEC provides research and development trials on new products for customers and pre-tests lines prior to shipment.

The GEA Bakery Experience Center labs are available both in GEA Comas and GEA Imaformi facilities with selected equipment and technologies that simulate complete production processes. Our expert food technologists are available to support customers in finding the best production processes, develop new recipes and improve existing ones, with special attention to enhancing shelf life and product quality.

GEA Service – For your continued success

Improve the life cycle costs of your bakery plant and equipment with GEA Service.

We work alongside our customers in close partnership, supporting them throughout the entire life cycle of their equipment and solutions ensuring lasting business success. However, to keep your plant operating at optimum performance, and to ensure your continued success, it needs to be maintained. That's where GEA Service comes in.

Thanks to integrating the latest automation and control solutions, like remote assistance, the status of your bakery machines can be monitored by our automation engineers in real-time by ensuring precise and efficient support.

Working with GEA Service means partnering with a dedicated team of service experts. From project engineering, installation, and commissioning to maintaining and improving the performance of your bakery plant and equipment.

- Beginning of Life Services – Getting you started with seamless support for instant productivity and performance.
- Lifetime Services – Keeping it running with the cost-efficient way of ensuring peak safety and reliability.
- Extended Life Services – Constantly improving by sharing our knowledge to safeguard your investment.
- Consulting & Enhanced Operations – Together with you by enduring commitment to you and your business.

Made to the minute. Every hour, every day, with GEA Service.





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 listed in selected MSCI Global Sustainability Indexes.

GEA Comas

Viale dell'industria 12
36015 Torrebelvicino, Italy

Tel +39 0445 660 222
Fax +39 0445 661 534

gea.com/contact
gea.com

GEA Imaforni

Via Strà, 158
37030 Colognola ai Colli
Verona, Italy

Tel +39 045 6174 711
Fax +39 045 6150 065

gea.com/contact
gea.com