A full supply of cheese making technology - from milk processing through to packaging - makes GEA a competent provider of cheese plants. GEA is your partner in design, engineering and manufacturing of complete production systems for soft/fresh, semi-hard and hard cheeses as well as pasta filata.

Cheese making is a highly skilled sector of the food industry. There is a huge variety of cheeses produced worldwide, and for each there are many factors, from the ingredients themselves to the processing steps that will influence production and quality.

Cheese making thus requires particularly high levels of experience, know-how and attention to detail by both the cheese producer and the process supplier. GEA has the technologies, expertise and experience required to meet every production target. Our detailed know-how spans milk reception, sterilization, separation, standardization, curd making, draining, molding, pressing, brining, filtration, CIP (cleaning-in-place), heat treatment and automation.

GEA can provide technical solutions that offer a very high level of standardization to ensure that our customers realize optimal quality, together with highly cost-effective operation and production.

An extract of what you can expect from GEA:

GEA supplies several solutions for curd preparation, whey/curd separation and processing. Whether it is fresh/soft, or semi-hard or hard cheeses, we have the solution for capacities from 1,000 up to 12,000 kg/h cheese.
Cheese making equipment from GEA

Cheese Presses
The purpose of pressing is to assist final whey expulsion, to provide texture, to shape the cheese and to provide a rind on cheeses with long ripening periods. Cheese presses are supplied in closed or open design and are suitable for both single molds and casettes.

Closed CIP-cleanable cheese presses and transport conveyors have a positive effect on the climate in the cheese factory. The moisture that is released from the cheese, whey and CIP remains within the press. As a result, the cheese factory is able to use a smaller, more energy-efficient air treatment system.

The press capacity is in accordance with the requested method: 1-210 press positions per press are possible for e.g. Euro-block.

Brining systems
Brining systems for different cheese types are executed with stationary or movable cages, loading and unloading stations or with floating channels. The Brine treatment by means of salt dissolving, acid dosing, cooling, filtration and microfiltration is designed individually to the type of cheese. Automation for the entire production line can be executed in several levels from semi to fully automatic.

Complete lines for pasta filata cheeses
GEA can also supply complete lines for production of pasta filata cheeses (mozzarella, pizza-cheese, caciocavallo, scamorza, kasseri, oaxaca) including cheese making vats, stretching and molding machines, pre-hardening units, hardening and brining vats with production capacities from 100 kg/h to 6,000 kg/h of finished product.

In addition, the portfolio of GEA contains four different types of cylindrical coagulators for capacities starting from 3,000 litres per cycle up to 15,000 litres per cycle. The cylindrical coagulator is used for the transformation of either cow’s or sheep’s milk. It is possible to obtain curd for pasta filata cheeses (fresh mozzarella and pizza-cheese) as well as for fresh cheeses or for mature cheeses such as pecorino and caciotta.

The last component of a process line is the hardening vat which collects and cools the product before packaging. Whether it is a hardening vat with one floor or two floors, GEA hardening vats consists of modular units for future extension.

GEA’s new technologies such as continuous steam stretchers DISCOVERY PLUS™ and non-stick surface treatment Vulcan are covered by patent. The Vulcan treatment is a completely new technology for treating metallic surfaces, consisting of automatically repeated mechanical actions. Unlike traditional Teflon-coating which has to be renewed at regular intervals, this treatment has a virtually unlimited lifespan, because it involves mechanical surface action, not a coating material.

Meaningful reporting
Information is the best tool for improving the quality of the process. Modules from the OTAS® software suite ensure traceability and documentation of your process. The OTAS® Report module especially enables you to document production and cleaning processes. The reports can be analyzed to assess the effectiveness of the entire plant. They contain key data relating to raw material deliveries, quantities produced or cleaning processes (CIP). Parameters such as temperatures, fat contents or weights can also be documented.

Innovative recipe system
Targeted production with a high level of standardization is gaining increasing importance for manufacturers. Deviations in the composition of the product generally reduce the cost effectiveness and quality of the products. With this in mind, the Dynamic Recipe system was developed. Process parameters such as raw material input per batch of a recipe, volume flow rate etc. are no longer set up as fixed, static values but as dynamic parameters which are automatically adjusted to the ingredients. The dynamic recipe does not start e.g. with a constant amount of milk per batch but with the amount of the final product cheese to be achieved.

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