

# MILK PROCESSING

**REDA**  
Food Processing Plants



## Pasteurizing Units



# REDA PASTEURIZATION PROCESS FOR MILK SAFETY AND QUALITY

Nowadays, consumers are constantly looking for high quality fresh products, while large retailers demand products with a longer shelf life to increase sales potential. In order to achieve these two apparently opposite goals, it is necessary to develop products with the characteristics described above and to use

filling methods that maintain the initial quality while assuring a long shelf life.

REDA company has a huge experience in the dairy sector and offers innovative methods for the production of pasteurized milk and ESL (Extended Shelf Life) milk.



Complete line for 10,000 l/h of ESL milk with bactofuge, milk/cream separator, automatic in-line standardizer, deaerator/degaser and homogenizer

The processing technology of pasteurized and ESL products has been developed considerably in the last years: today REDA company is able to offer delicate working treatments, properly designed equipment, as well as management and control systems that allow to find new opportunities in the contemporary market.

REDA combines different treatment methods (mechanical and thermic) in accordance with clients' needs, in order to guarantee the maximum effect of bacterial removal, while preserving the nutritional qualities of the product.



## OPTIONS

To make sure that the customer can produce different high milk quality products, i.e. whole milk, skimmed milk, standardized milk or cream with various fat contents, milk for yogurt production and fermented products, REDA E.S.L. processing Lines are available with following options:

- Plates or tubular type heat exchangers;
- Milk bacteria separators;
- Milk / Cream separators;
- Automatic in-line milk / cream standardization units;
- Milk deaerators / degasers;
- Homogenizers;
- Ultra-clean or Aseptic intermediate tanks;

## PASTEURIZATION

The basic process of the pasteurization foresees to start from receipt of raw milk, passing through several stages (milk clarification, bacterial charge removal, cream separation, standardization, pasteurization, stocking and filling) until the product is filled and packaged, ready to be placed on the market.

The process proposed by REDA involves the pasteurization of milk at around 80°C combined with the automatic

in-line standardization for both milk and cream. In the lines are also included a degaser-deaerator and homogenizer.

In addition to milk for consumption or cheese production, REDA pasteurization process can be equipped with a heat holder in order to produce fermented dairy products such as yogurt, sour cream, kefir, tvorog, leben, lanaba, dug and ayran.



## ESL MILK TREATMENT

In order to produce milk with characteristics, as close as possible to those of classic "fresh pasteurized" milk, but with a longer shelf life, a heat-resistant aerobic spore removal technology is required that does not change the taste of the milk. One of the processes, proposed by REDA, consists of a super-pasteurization treatment of the milk (at +125°/135°C), combined with the mechanical

bacterial removal from the milk, when it is heated at a temperature of 60°C by means of a bactofuge.

The ESL milk (Extended Shelf Life) is stored at +3°/4°C in a tank (Ultra-clean type), and then packed by special filling machines, developed for the filling in "controlled atmosphere" conditions.

The product treated in this way, while preserving the qualities of the pasteurized product such as freshness, taste and nutritional value, gained an advantage in comparison with the traditional pasteurized milk – a longer shelf live. The ESL milk can be stored for 28 days from the moment of the filling to the product distribution on a "cold chain" at a temperature of +5°/7°C.



## ADVANTAGES OF ESL MILK

- Longer shelf life compared to the traditional pasteurized milk.
- Higher product quality.
- Increased the shelf life of treated milk without spending on an aseptic treatment.
- Preservation of the freshness, taste and nutritional value of milk.
- The milk preserves the same excellent taste qualities as fresh pasteurized milk and keeps them until consumption.
- A longer shelf life of the product ensures a wider market coverage, as additional sales points become accessible.
- Ideal solution for retailers, as well as for large distribution chains.
- Reduction in the number of returns compared to traditional fresh milk.
- Investments are calculated on the real needs of the customers.

# APPLICATIONS OF PASTEURIZED AND ESL MILK TREATMENTS

REDA's process lines offer the most reliable solutions for the production of pasteurized and ESL milk, as well as milk for cheese and fermented products.

Thanks to a long experience in the ultra-clean/aseptic field, REDA guarantees the best process solutions to obtain pasteurized milk for a wider and longer distribution in the market.

- Fresh milk (whole, standardized, skimmed)
- ESL milk
- Cream
- Cheese (soft, semi-hard, hard)
- Fermented milk products
- Yogurt and drinkable yoghurt



Complete line of milk pasteurisation with in-line automatic standardization system for milk/cream



**Remark:**

The technical data, drawings and pictures contained in this brochure are indicative and not binding. We reserve the right to change specifications of the product without prior notice or liability to third parties.



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