MGT has developed a system for ESL milk processing in an Ultra Clean environment. The final product can achieve up to 30 days shelf life. ESL technology is the most advanced technology which replaces the standard pasteurized milk product. ESL maintains the quality and extends the shelf life of the milk under cold chain of below 8°C. The system is based on an indirect heating system with Ultra Pasteurization which reaches the temperature of 127°C to 130°C for 2-3 sec.

After the Ultra Pasteurization, the milk is almost sterile and it is then transferred to buffer tanks that are fitted with special HEPA filtration for preserving the Ultra Clean environment inside these buffer tanks and to avoid contamination of the milk. The final step of ESL processing and the most complicated is the filling stage. Special filling systems and HEPA filtration in order to maintain the milk under Ultra Clean environment are used, up to the final stage of sealed and packed product ready for the market.

**ESL advantages**
- Reduction in product spoilage
- Improved competitiveness
- Fresh milk products (not UHT)
- Reduces the high cost of distribution and logistic
- Enables Exporting dairy products

**Six Keys To Extending Product Shelf Life**

1. Raw Product Quality
2. Processing Time and Temperatures
3. Intermediate Storage (tanks) and Ultra Clean Environment
4. Equipment Condition (Valves and Piping)
5. Packaging Environment, packaging material, Filler Characteristics
6. Retail distribution storage environment

**ESL SYSTEMS**

**EXTENDED SHELF LIFE MILK**

**Our turnkey solution**

> Initial survey
> Planning
> Initial Sales Support
> Comprehensive Design
> Training (Technical, Technological)
> Installation and Commissioning
> In-house manufacturing of milk processing components

**What is ESL ~ Extended Shelf Life Milk?**

Extended Shelf Life Milk can be achieved using Ultra pasteurization and proper treatment during all of the production stages. The fundamental principle of this process is to reduce bacteria levels and prevent the spores from forming units in the product during processing and packaging. MGT ESL Systems are designed to perform with extremely high levels of production hygiene and together with our Special MGT ESL pasteurizer, the state of the art pasteurizing line is designed to achieve extended shelf life for our customer's milk.

**Our quality standards:**

- Custom made
- High quality standards
- Cost-effective solution
- On-time delivery worldwide
- Creative solutions

**MGT-PROCESS offers a turnkey solution for Milk processing plants.**

**Six Keys To Extending Product Shelf Life**

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By combining more than 40 years of experience supplying food processing plants worldwide and by utilizing state of the art technology, MGT-PROCESS provides its customers with superior solutions adapted to their unique requirements.

Processing ESL milk and achieving longer shelf life:

- Raw milk tank 4°C
- Ultra Pasteurization Process for ESL milk
- Pasteurized milk holding tank with sterile air in the tank
- Filling machine with sterile air provided by air filter
- Refrigeration 6 storage 4°C
- Distribution in cold chain 4°C
- Shelf Life up to 21 days In cold chain 4°C

ESL SYSTEMS
EXTENDED SHELF LIFE MILK