



## **KAV systems** **Technology & Development LTD.**

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Mini-dairy 2005

### The Mini-Dairy Production Plant



Kav Systems has been manufacturing small milk processing lines for 15 years both in Israel and world-wide. The range starts with a mini-dairy with a capacity of 1,000 liters and extends to full turnkey mini-dairies with a processing capacity of up to 10,000 liters per day.

The mini-dairies are real milk processing lines, based on the technology of larger dairies, but on a reduced scale. They can be supplied and installed suitable for all usual kinds of dairy products, i.e. consumption milk, cream, butter, yogurt, kefir, other fermented milk products, fresh and ripened cheese, etc.

A growing number of milk producers have in recent years started their own milk processing. This is in order to sell their products at a greater added value and a higher quality. The same applies to large farms in countries with very long

distances to the next milk factory or an insufficient infrastructure for the collection of milk and the distribution of the processed products

#### **Full solutions**

Kav Systems creates full solutions to the customer's demands. We provide our customers with highly qualified technical advice and support in all stages of the project: development and design, implementation, maintenance, upgrading, extension, service. Kav Systems engineers the full project, manufactures the required equipment and supplies and installs the line, including start-up and training of the personnel.

#### **The dairy Components**



#### **The continuous flow and batch pasteurizer**

The Kav Systems pasteurizer is the heart of the dairy. Next to the basic consumption milk line, the dairy can be extended to various other product lines, such as cream, yogurt, kefir or other fermented milk products, butter, fresh and ripened cheese, etc

An integrated ice water and hot water plants are supplied to fit local availability of electricity, diesel fuel or else.





### **Milk reception, cooling, pasteurization and packaging**

The raw milk enters the dairy by truck or in cans and should be cooled and stored in the milk cooling tanks as quickly as possible, to preserve the milk quality.

Pasteurization of dairy products is one of the possible heat treatments. The aim is to kill off the entire population of disease-producing bacteria and greatly reduce the total number of micro organism present.

After pasturing, the milk is packed, e.g. in plastic pouches/bottles or in cartons. Kav Systems also provides the necessary pumps, ice builders, hot water unit and other equipment required to complete the installation.



### **Cheese Production line**

In special cheese vats the pasteurized milk is processed into cheese. This is the preliminary stage in the production of a wide range of fresh or ripened cheeses.

A cheese press and cheese forms are used for the production of hard cheese.

Various types of cheese are being processed in specially designed insulated tanks, including leaking vessel and incubator for the production of cultures .to meet local taste and marketability.



### **Fermented products line**

Pasteurized and preferable homogenized milk can be processed into fermented milk products, such as set or stirred yoghurt, kefir and other locally consumed fermented milk products. Vertical, atmospheric tanks are used for the fermentation of milk. Fruits and flavors can be added before filling into plastic cups.

### **Cream or butter Production line**

Cream is produced by standardizing the fat content of the milk or skimming the milk completely by means of a separator. The cream can be pasteurized and freshly packed, after ripening be filled in cups or be processed further into butter.

The cream is pasteurized and ripened in a batch pasteurizer before being processed into butter in the churn.