

## 84.34

### 84.34 - Milking machines and dairy machinery.

8434.10 - Milking machines

8434.20 - Dairy machinery

8434.90 - Parts

This heading covers mechanical milking machines, and other machinery, whether for farm or industrial purposes, used in the treatment of milk or for converting it into other dairy products.

#### (I) MILKING MACHINES

A milking machine comprises a cluster of teat-cups (each with a rubber liner) which are connected, by means of flexible tubing, on one side to a vacuum pump unit via a pulsator and on the other to a milk pail (usually of stainless metal). The pulsator, which is fixed to the lid of the milk pail, acts on the teat-cups by alternating atmospheric pressure with a comparative vacuum between the cups and the liners. The assembly formed by the teat-cup cluster, the pulsator and the milk pail is described as a "milking pail".

In certain machines of smaller capacity, the milking pails and the vacuum pump unit may be on a common base (single or twin-pail machines).

In the machines of larger capacity, the various components are usually separate. A variable number of milking pails may be connected to the vacuum pump unit by piping. Certain types have no milk pails, the milk passing directly from the teat-cups to the cooling apparatus or storage tanks along a pipe-line, generally fixed. These types include milking robots, also known as voluntary milking systems. These systems, which incorporate all the equipment necessary for automatic milking, *inter alia*, a nimble robotic arm, electronic devices, a vacuum pump, a compressor, a washing machine, milk meters, etc., are designed for milking cows at their own initiative. Each cow wears a collar carrying a transponder that identifies it, so that the system can decide whether the animal is due to be milked. The milking is performed by a robotic arm fitted with a laser-assisted vision system that permits the milk extraction devices to be guided directly to the teats of the cow.

When presented together, the various components of such machines are classified in this heading as constituting a functional unit within the meaning of Note 4 to Section XVI (see the General Explanatory Note to that Section). **However**, apparatus and appliances which do not contribute directly to the milking function (filters, cooling devices, storage tanks, apparatus for cleaning the teat-cups and pipe-lines, etc.) are **not** classified in this heading but in their appropriate headings.

## (II) MACHINES FOR PROCESSING MILK

This group includes **homogenisers**. These break up the fat into fine particles which are more readily digestible, and which also remain longer in a state of emulsion without the formation of cream.

The majority of machines for processing milk depend essentially on the principle of heat exchange and are therefore **excluded (heading 84.19)**, e.g., apparatus for pasteurisation, stassanisation or sterilisation; apparatus for condensing or drying milk; milk coolers.

The heading further **excludes** :

- (a) Refrigerating appliances (whether or not specially designed for cooling or keeping milk) and milk-cooling vats, incorporating an evaporator of a refrigerating unit (**heading 84.18**).
- (b) Cream separators, filter-presses and other filtering or clarifying machinery or apparatus (**heading 84.21**). (Simple filter funnels and milk strainers are, however, classified according to the constituent material.)
- (c) Machines for washing milk containers, and milk bottling or canning machines (**heading 84.22**).

## (III) MACHINERY FOR CONVERTING MILK INTO OTHER DAIRY PRODUCTS

It should be noted that cream separators are **excluded (heading 84.21)**. The heading does, however, cover machines, used for the manufacture of butter or cheese. They include :

### (A) Butter-making machines.

- (1) **Churns** usually consist of a barrel of stainless steel, inside of which are a number of partitions or blades. The barrel or the blades are rotated by motor power and the resultant beating action hardens the cream to foam and gradually converts it into butter.
- (2) **Combined churns and workers**. These machines, which are used for continuous production of butter, consist essentially of electric motors that drive cylinders with fast rotating elements which transform the cream into butter. The butter is pressed through the working elements of the machine as a continuous length.
- (3) **Machines for moulding butter** into the required commercial shapes, but **not including** machines which also wrap or weigh the product (**headings 84.22 and 84.23**).

## 84.34

### (B) Cheese-making machines.

- (1) **Machines for breaking up and homogenising** the mixtures of curd and cream in the manufacture of soft or cream cheeses.
- (2) **Machines for moulding** hard, semi-hard and soft or cream cheeses, but **not including** machines which also wrap or weigh the product (**headings 84.22 and 84.23**).
- (3) **Cheese presses** (e.g., of the mechanical, pneumatic, etc., types) are used, especially in the manufacture of harder cheeses, both to shape the product and to eliminate the superfluous moisture.

\*  
\* \*

It should be noted that the heading **excludes** many machines and apparatus used in the dairy industry. For example, storage, maturing, processing, etc., vats and tanks whose operation depends primarily on fitted heating or cooling equipment fall in **heading 84.18 or 84.19**, whether or not they also incorporate mechanical equipment such as agitators. Vats, etc., not fitted with heating or cooling equipment, but incorporating mechanical features such as stirrers, agitators, tipping mechanisms, etc., are classified in this heading **provided** they are identifiable as specialized for dairy use. If they are not identifiable as for any one particular use, they are classified in **heading 84.79**. Vats, etc., not fitted with either thermal or mechanical equipment are classified as articles of the constituent material (e.g., **heading 73.09, 73.10, 74.19, 76.11, or 76.12**).

### PARTS

**Subject** to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), parts of the machines of this heading are also classified here, e.g.:

Pails, lids, pulsators, teat-cups and fittings (**other than** rubber liners, etc. - **heading 40.16**) for milking machines; butter churn barrels; rollers and tables for butter workers; moulds for butter and cheese moulding machines.

\*  
\* \*

The heading **excludes** domestic appliances falling in **heading 82.10 or 85.09**.