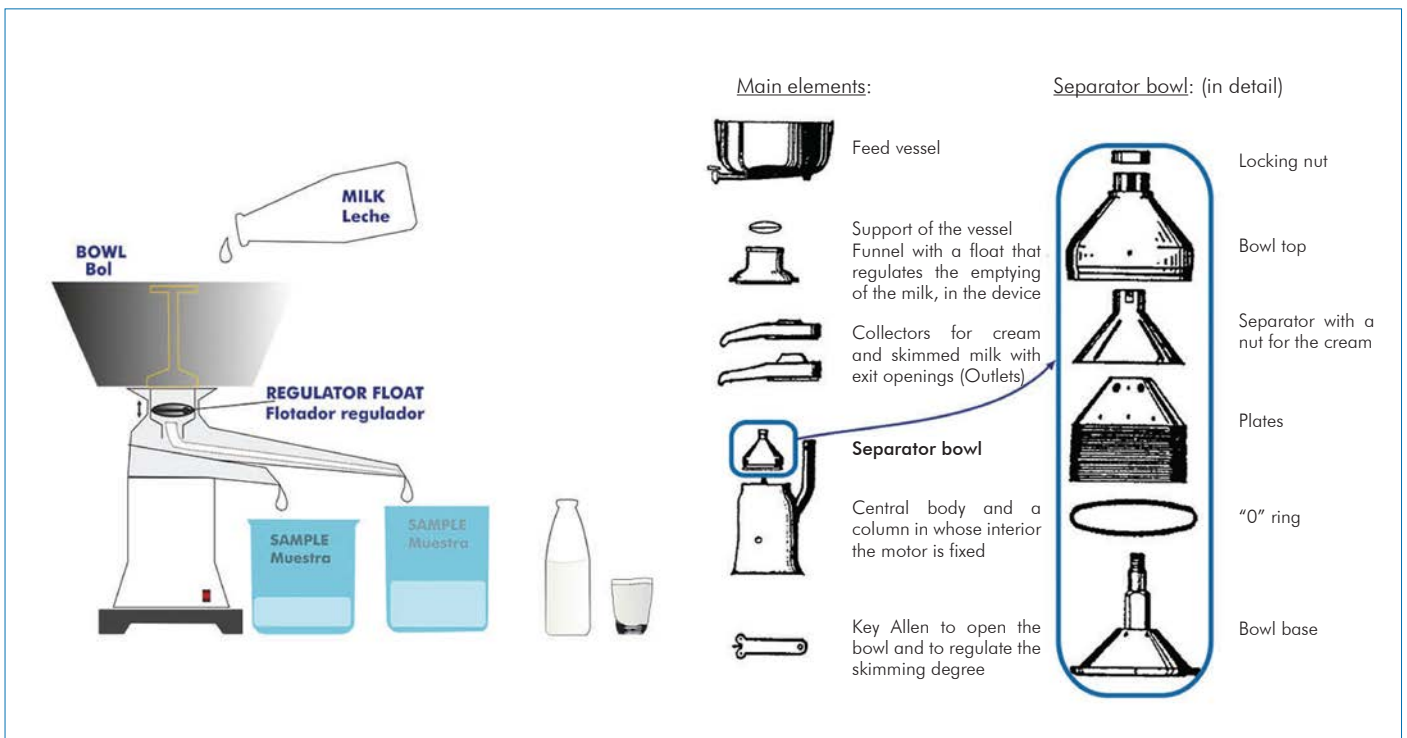




PROCESS DIAGRAM AND DETAIL OF THE COMPLETE UNIT



ISO 9001: Quality Management (for Design, Manufacturing, Commercialization and After-sales service)



European Union Certificate (total safety)



Certificates ISO 14001 and ECO-Management and Audit Scheme (environmental management)



"Worlddidac Quality Charter" and Platinum Member of Worlddidac

INTRODUCTION

Skimming is the process through which the milkfat is partially or totally separated from the milk, thus obtaining two fractions: one of skimmed or semi-skimmed milk, according to the percentage of fat removed, and another of cream.

The Teaching Cream Separator, "DSN", designed by EDIBON is a unit that provides a practical training in the separation technique of the different phases of a liquid, according to the density of each part.

GENERAL DESCRIPTION

The Teaching Cream Separator, "DSN", allows the study of the separation of a dense phase liquid from a lighter phase liquid, in particular the separation of the cream from the milk in a disk stack centrifuge.

The system is mounted on a table base on which the integral elements of the unit are located.

The milk supply tank is located over the centrifuge and can be filled in continuously.

The separating bucket consists of a vertical rotation axis and discs or conical plates. They are arranged one on top of another in an inverted manner and separated by very little distance. In addition, the discs have small holes that allow the flow of material through them.

This set of discs is surrounded by a casing and sealed by a rubber gasket to avoid possible losses. All these elements are contained in a polypropylene bucket or vessel that includes two outlet ducts, one for the cream and another for the skimmed milk.

The motor is directly coupled to the separator vessel and vertically mounted in a casing. It makes the plates rotate at high speed and, therefore, it is the element that creates the centrifugal force.

Besides, the unit has a control panel that contains the speed regulator. It allows to control and vary the turning speed of the motor, so that the density of the cream to be obtained is controlled.

SPECIFICATIONS

Bench-top unit.

Anodized aluminum frame and panels made of painted steel.

Main metal elements made of stainless steel.

Diagram in the front panel with distribution of the elements similar to the real one.

An output up to 125 l per hour can be obtained, depending on the degree of separation.

Supply tank made of anodized aluminum:

Capacity: 10 l.

It can be filled in continuously.

Funnel with float that regulates the milk emptying in the separator.

Manifold with outlets for the cream and the skimmed milk.

Separator bowl with 19 discs (separating plates).

Motor with speed control.

Included accessories:

Stopwatch.

Two beakers to collect the product.

Allen key.

Brushes.

The unit can be disassembled for easy cleaning.

Control panel that includes:

Switch to start the motor.

Speed controller of the motor.

Display that indicates the speed measurements of the motor.

ON/OFF switch.

The complete unit includes as well:

Cables and Accessories, for normal operation.

Manuals: This unit is supplied with the following manuals: Required Services, Assembly and Installation, Starting-up, Safety, Maintenance & Practices Manuals.



DSN detail

EXERCISES AND PRACTICAL POSSIBILITIES

- 1.- Study of the separation of different density liquids.
- 2.- Demonstration of the effect of the temperature in the separating process.
- 3.- Demonstration of the effect of the speed in the separating process.
- 4.- Production of different types of cream by using milks with different greasy matter contents, 11% to 55%.
- 5.- Production of a range of skimmed milks with different contents of greasy matter.
- 6.- To show the importance of cleanness and hygiene in food processing.
- 7.- Understanding the operation mode of this type of centrifuge, using instructive diagrams and ease of strip down the component parts.

REQUIRED SERVICES

- Electrical supply: single-phase 200 VAC – 240 VAC/50 Hz or 110 VAC – 127 VAC/60 Hz.

REQUIRED CONSUMABLES (Not included)

- Milk with high fat content.

DIMENSIONS AND WEIGHTS

DSN:

- Dimensions: 500 x 500 x 500 mm approx.
(19.68 x 19.68 x 19.68 inches approx.)
- Weight: 25 Kg approx.
(55 pounds approx.)

AVAILABLE VERSIONS

- Offered in this catalog:
 - DSN. Teaching Cream Separator.
- Offered in other catalog:
 - DSNC. Computer Controlled Teaching Cream Separator.

DSN/ICAI. Interactive Computer Aided Instruction Software System:



With no physical connection between unit and computer, this complete software package consists of an Instructor Software (EDIBON Classroom Manager -ECM-SOF) totally integrated with the Student Software (EDIBON Student Labsoft -ESL-SOF). Both are interconnected so that the teacher knows at any moment what is the theoretical and practical knowledge of the students.

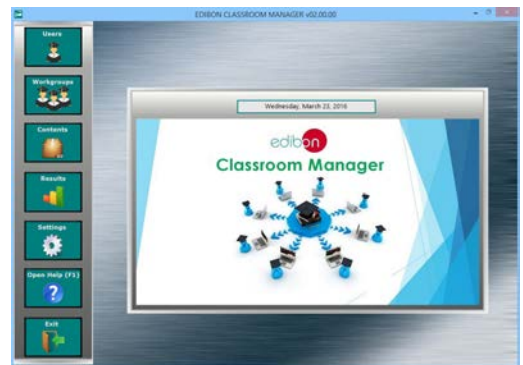
Instructor Software

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).

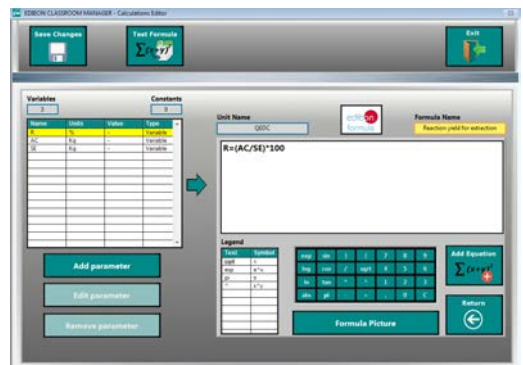
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual students, workgroups, units, etc... so the teacher can know in real time the level of understanding of any student in the classroom.

Innovative features:

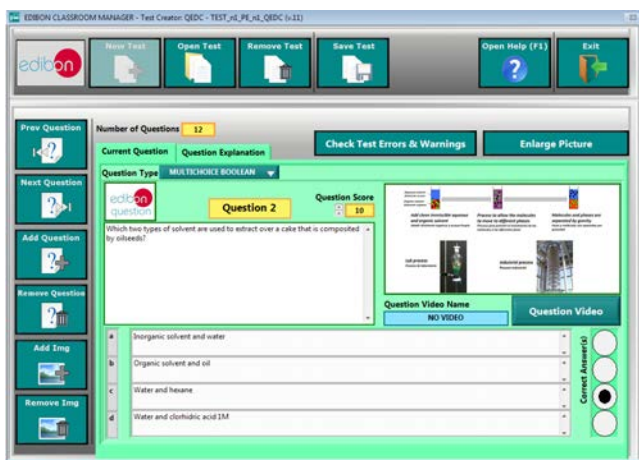
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.
- Updatable Contents.
- Report generation, User Progression Monitoring and Statistics.



ECM-SOF. EDIBON Classroom Manager (Instructor Software) Application Main Screen



ECAL. EDIBON Calculations Program Package - Formula Editor Screen



ETTE. EDIBON Training Test & Exam Program Package - Main Screen with Numeric Result Question



ERS. EDIBON Results & Statistics Program Package - Student Scores Histogram

