



# FOOD & WATER TECHNOLOGIES

# 12

## FOOD & WATER TECHNOLOGIES

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### ABOUT US

At EDIBON, we have been a **worldwide benchmark** in **technical education and research equipment** since **1978**. We design and manufacture **state-of-the-art teaching equipment and pilot plants**, integrating **cutting-edge technology** to enhance training and scientific development.

With a catalog of around **4,500 different products**, we provide institutions and industries with solutions for **learning, experimentation, and process optimization**.

### Our mission

Our commitment is to deliver **high-quality solutions** to **educational institutions, research centers, and industrial sectors**, ensuring **precision, efficiency, and excellence** in every project.

### Our vision

Backed by a **highly skilled team**, EDIBON is a global leader in **technical education and research equipment**, providing a **comprehensive service** that includes **design, manufacturing, installation, maintenance, and advisory support**. Our priority is to ensure success and complete customer satisfaction, delivering high-quality and innovative solutions.



# 12.1

## FOOD TECHNOLOGY



# SBANC Computer Controlled Tray Drier

# SSPC Computer Controlled Spray Drier

with EDIBON SCADA

The Computer Controlled Tray Drier "SBANC", developed by EDIBON, uses one of the most usual drying methods. It consists in making an air current circulate towards the substance to be dried.

with EDIBON SCADA

The Computer Controlled Spray Drier, "SSPC", allows to study processes that involve aqueous emulsions, solutions, suspensions and colloidal solutions.



EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

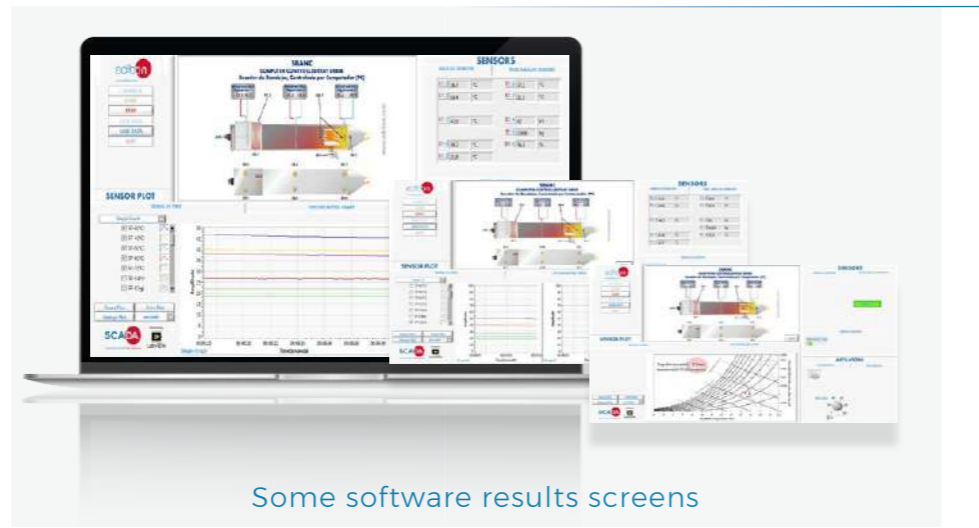


EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 2000 x 400 x 450 mm approx.  
(78.74 x 15.75 x 17.72 inches approx.)  
Weight: 190 kg approx. (419 pounds approx.)



Some software results screens

manual version AVAILABLE

### DIMENSIONS AND WEIGHTS

Dimensions: 500 x 500 x 1200 mm approx.  
(19.68 x 19.68 x 47.24 inches approx.)  
Weight: 80 kg approx. (176.36 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the preheating effect in a drying process.
2. Obtaining drying curves.
3. Influence of the size of the particle.
4. Influence of the air speed.
5. Influence of the air temperature.
6. Application of psychrometry in the drying process.
7. Sensors calibration.

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Operation principle of a spray drier.
2. Effect of the drop size on the drying process.
3. Effect of the air input temperature on the drying process.
4. Effect of the feed flow of the product on the drying process.
5. Mass balance of a spray drier.
6. Spray drier efficiency.
7. Sensors calibration.

# SDCC Computer Controlled Spray Dryer and Chiller Unit

with EDIBON SCADA

The Computer Controller Spray Dryer and Chiller Unit, SDCC, consists of two systems with independent inlet and outlet computer controlled speed fans.

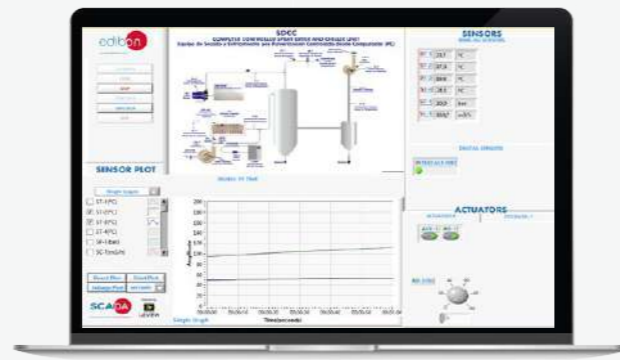


EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ESN**  
EDIBON SCADA-Net
- ECL**  
EDIBON Cloud Learning

### DIMENSIONS AND WEIGHTS

Dimensions: 1800 x 700 x 1700 mm approx.  
(70.86 x 27.55 x 66.92 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Operating principle of a spray dryer.
2. Effect of the drop size in the drying process.
3. Effect of the air inlet temperature in the drying process.
4. Effect of the product supply flow in the drying process.
5. Mass balance of a spray dryer.
6. Efficiency of the spray dryer.
7. Sensors calibration.

# VPMC Computer Controlled Multipurpose Processing Vessel

with EDIBON SCADA

The Computer Controlled Multipurpose Processing Vessel, "VPMC", developed by EDIBON, is a type batch equipment, suitable to demonstrate the different mixing processes in the alimentary industry.



EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 800 x 800 x 1250 mm approx.  
(31.49 x 31.49 x 49.21 inches approx.)  
Weight: 150 kg approx. (330 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of different process, with their adequate instrumentation, using heating and cooling systems.
2. General emulsion study.
3. Mayonnaise production.
4. Yogurt production.
5. Batch pasteurization of milk.
6. Processing of fermented milk products.
7. Preparation and curing of ice cream mix.
8. Preparation of margarine and soft spread emulsions.
9. Heat transfer measurement.
10. Heat transfer calculations.
11. Study of general heating, cooling and chilling.
12. Sensors calibration.

# ROUC Computer Controlled Reverse Osmosis/ Ultrafiltration Unit

with  
EDIBON  
SCADA

The Computer Controlled Reverse Osmosis/Ultrafiltration Unit, "ROUC", allows the practical study of the ultrafiltration and reverse osmosis techniques.

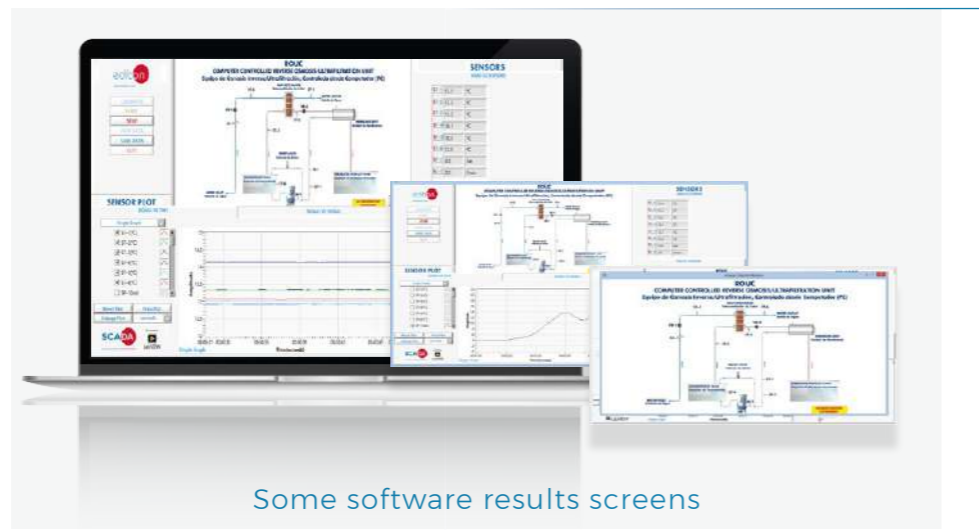


EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 800 x 800 x 1000 mm approx.  
(31.5 x 31.5 x 39.37 inches approx.)  
Weight: 165 kg approx. (363 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Practical training in ultrafiltration and reverse osmosis processing techniques.
2. Protein standardization in the production of fermented milk products such as concentration of skimmed milk for yogurt production.
3. Pre-concentration of milk for cheese manufacture.
4. Concentration of fruit juices.
5. Clarification of fruit juices.
6. Water potabilization.
7. Demonstration of the effect of varying the following process parameters on separation performance:
8. Process pressure.
9. Product flow rate.
10. Process temperature.
11. Sensors calibration

# AFPMC Computer Controlled Plate and Frame Filter Press

with  
EDIBON  
SCADA

The Computer Controlled Plate and Frame Filter Press, "AFPMC", has been designed to demonstrate the filtration and clarification processes suitable for chemical, pharmaceutical, food and beverage industries, etc.



EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ESN**  
EDIBON SCADA-Net

### DIMENSIONS AND WEIGHTS

Dimensions: 2000 x 1100 x 1300 mm approx.  
(78.74 x 43.3 x 51.18 inches approx.)  
Weight: 75 kg approx. (165 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Learning the fundamental principle and operation method of a plate and frame filter press.
2. Study of filtration and clarification processes.
3. Demonstration of pre-coat filtration.
4. Production of a suspension.
5. Formation of a cake.
6. Fundamentals of cake filtration. Demonstration of Darcy's Law.
7. Turbidity versus concentration calibration straight line.
8. Study of the plate and frame filter press at constant pressure.
9. Study of the plate and frame filter press at constant flow.
10. Variation in time of filtrate quantity and solid concentration in filtrate.
11. Mass of filter cake in function of filtrate quantity.
12. Determination of medium and cake resistance.
13. Filter cake washing and dewatering.

# AEHC Computer Controlled Hydrogenation Unit

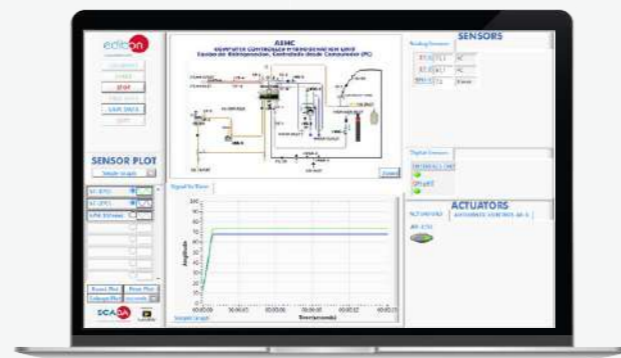
with  
**EDIBON**  
SCADA



The Computer Controlled Hydrogenation Unit (PC), "AEHC", allows the study of the hydrogenation process in a discontinuous process, by adjusting the degree of saturation of edible oils.

### DIMENSIONS AND WEIGHTS

Dimensions: 1400 x 1100 x 2000 mm approx.  
(55.11 x 43.3 x 78.74 inches approx.)  
Weight: 250 kg approx. (551 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the effect of process temperature.
2. Study of the effect of degree of agitation.
3. Study of the effect of hydrogen gas pressure.
4. Operation of small scale version of the industrial hydrogenation process.
5. To determine the optimum catalyst dosage.
6. To demonstrate the operation of the filter for catalyst recovery.
7. Study of the effect of catalyst type.
8. Sensors calibration.

**edibon** History:  
*speaks for itself*

ORDERS done by EDIBON  
**6514** (as of today)

Installations and start-ups  
carried out on clients  
**845**

Total number of different clients  
**2780**

% of total equipment  
destined abroad  
**89%**



# AEDC Computer Controlled Deodorizing Unit

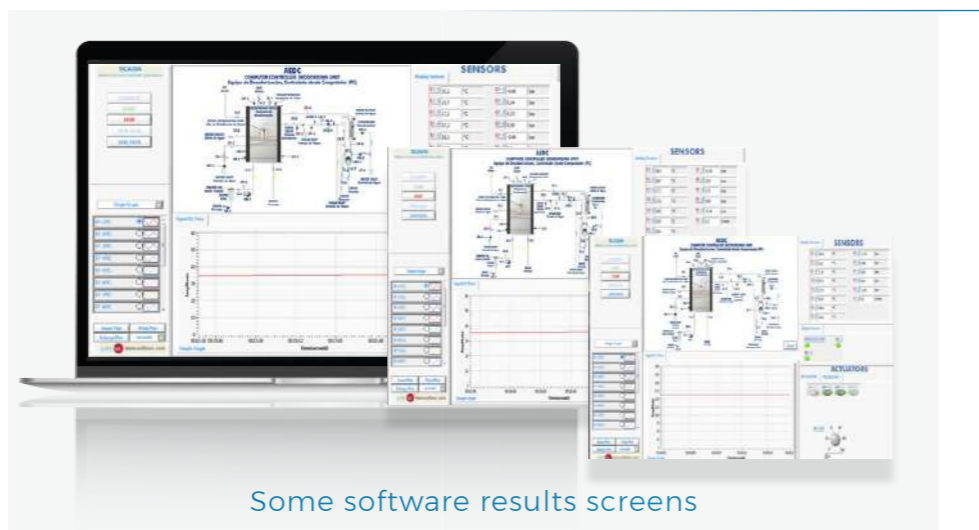
with  
EDIBON  
SCADA

The Computer Controlled Deodorizing Unit, "AEDC", is a batch deodorizing process unit able to perform a vacuum steam distillation under low pressure and high temperature with steam.

## DIMENSIONS AND WEIGHTS

Dimensions: 1400 x 930 x 1800 mm approx.  
(55.11 x 36.61 x 70.86 inches approx.)

Weight: 520 kg approx. (1146 pounds approx.)



Some software results screens

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the operation of small scale version of the deodorizing industrial process.
2. Study of the variation of deodorizing process temperature.
3. Study of the variation of deodorizing process pressure.
4. Study of the variation of quantity of direct steam added to the deodorizing process.
5. Study of the variation of overall process time in the deodorizing process.
6. Sensors calibration.

# AEDC/A Advanced Computer Controlled Deodorizing Unit

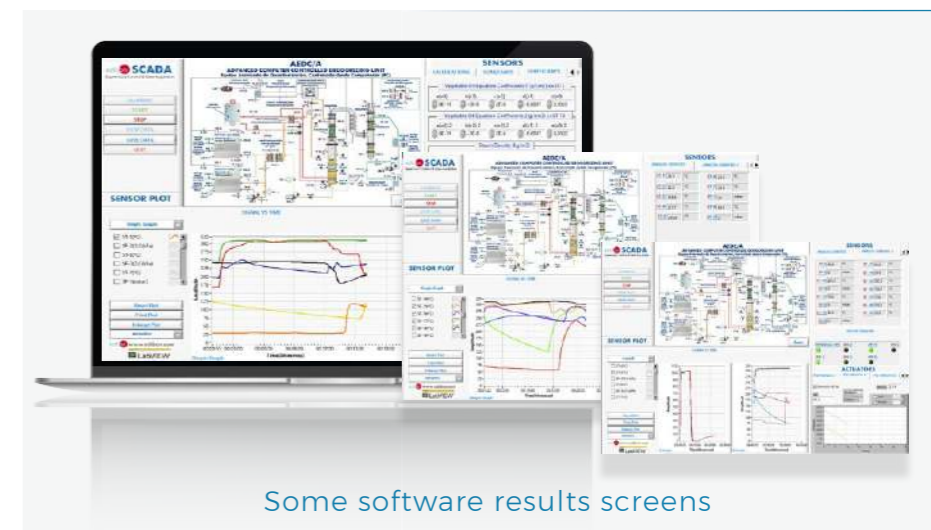
with  
EDIBON  
SCADA

The Advanced Computer Controlled Deodorizing Unit, "AEDC/A", designed by EDIBON is a unit that allows the study and research of the continuous deodorization operation capable of performing a vacuum and high temperature distillation with steam.

## DIMENSIONS AND WEIGHTS

Dimensions: 7000 x 1000 x 4000 mm approx.  
(275.58 x 39.36 x 157.47 inches approx.)

Weight: 500 kg approx. (1102 pounds approx.)



Some software results screens

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the operation of a small-scale model of the industrial continuous deodorization process.
2. Study of the operation of a small-scale model of the industrial discontinuous deodorization process.
3. Study of a structured packing column.
4. Study of the fatty acid removal process of various vegetable oils.
5. Study of the variation in temperature of the deodorization process.
6. Study of the variation in pressure of the deodorization process.
7. Study of the variation in the amount of direct steam added to the deodorization process.
8. Study of the variation in the total processing time of the deodorization process.
9. Study of the effect of the recirculation of the fatty acids obtained in the process.
10. Sensor calibration.

# PACC

## Computer Controlled Continuous Cycle Oil Production Plant

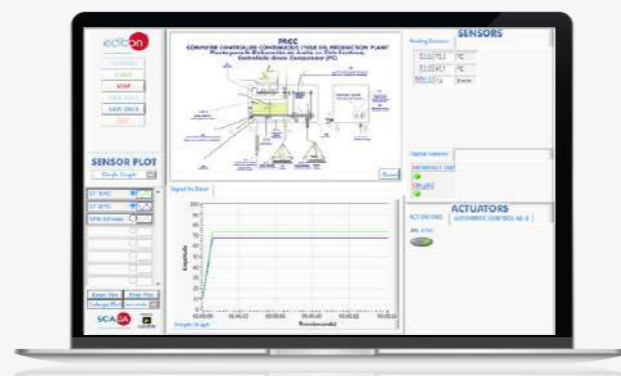
with  
EDIBON  
SCADA



Computer Controlled Continuous Cycle Oil Production Plant, "PACC", designed by EDIBON, allows the teaching and research of the process of obtaining olive oil, measuring the acidity of the oil, as well as the study of the yield of the process.

### DIMENSIONS AND WEIGHTS

Dimensions: 1500 x 800 x 1700 mm approx.  
(59.05 x 31.5 x 66.93 inches approx.)  
Weight: 300 kg approx. (660 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Obtaining of Extra Virgin Oil.
2. Measurement of the acidity of the obtained oil.
3. Determination of the performance depending on the decanter centrifugation speed.
4. Determination of the performance depending on the type of used olive.
5. Study of the influence of the collection time in the performance.
6. Comparative study of the oil performance depending if the olive has been just recollected or if previously it has been put out in the sun to dry.
7. Sensors calibration.

# EDLC

## Computer Controlled Liquid Packaging Teaching Unit

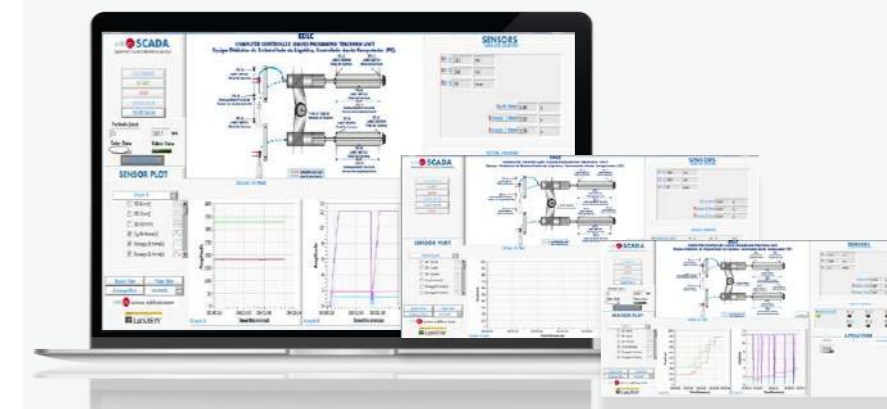
with  
EDIBON  
SCADA



The Computer Controlled Liquid Packaging Teaching Unit, "EDLC", unit is a liquid and semi-dense products dosing machine based on dose delivery through a pneumatically-operated cylinder.

### DIMENSIONS AND WEIGHTS

Dimensions: 1200 x 450 x 900 mm approx.  
(47.24 x 17.71 x 35.43 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Familiarization with the operation of a liquid filling machine.
2. Study of the influence of the product level regulation on the bottles.
3. Study of the influence of the type of liquid on the bottle filling.
4. Study of the liquid dosing during the filling process.
5. Sensors calibration.

# QEDC Computer Controlled Batch Solvent Extraction and Desolventising Unit

# TFDC Computer Controlled Teaching Frigorific Tank

with EDIBON SCADA

The Computer Controlled Batch Solvent Extraction and Desolventising Unit, "QEDC", is a batch process unit able to perform different solid/liquid extractions.

with EDIBON SCADA

The Computer Controlled Teaching Frigorific Tank, "TFDC", designed by EDIBON, allows to analyze the operation of a cold tank and to study the influence of the temperature in the preservation of liquid food.



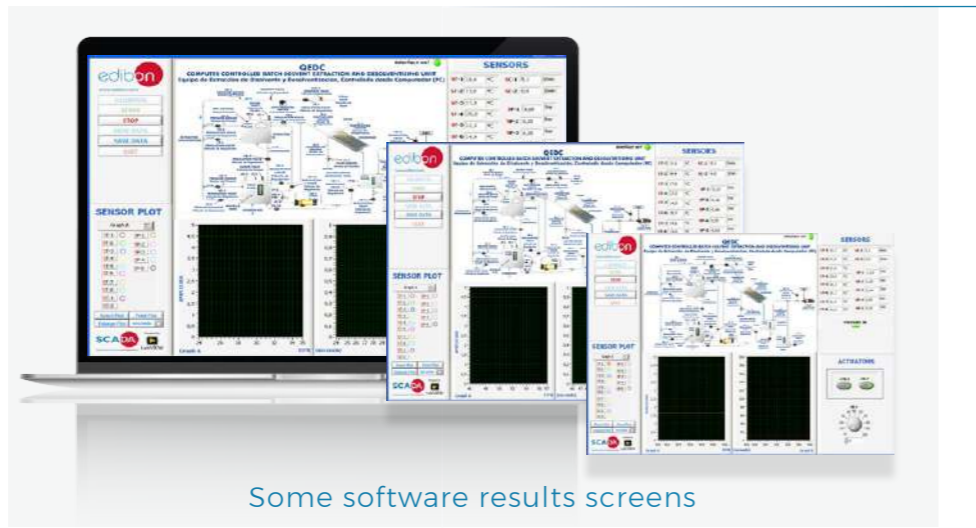
EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO



### DIMENSIONS AND WEIGHTS

Dimensions: 1750 x 1000 x 2000 mm approx.  
(68.89 x 39.37 x 78.74 inches approx.)  
Weight: 850 kg approx. (1873.92 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Operation of small scale version of industrial processes.
2. Effect of degree of pretreatment of solid material on extraction efficiency.
3. Effect of extraction time.
4. Effect of drain time.
5. Effect of solvent type.
6. Effect of solvent percolation rate.
7. Effect of process temperature.
8. Effect of process pressure.
9. Method of solvent recovery.
10. Degree of solvent recovery.
11. Sensors calibration.

### DIMENSIONS AND WEIGHTS

Dimensions: 1000 x 1000 x 500 mm approx.  
(39.36 x 39.36 x 19.68 inches approx.)  
Weight: 80 kg approx. (176 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Operation of small scale version of industrial processes.
2. Effect of degree of pretreatment of solid material on extraction efficiency.
3. Effect of extraction time.
4. Effect of drain time.
5. Effect of solvent type.
6. Effect of solvent percolation rate.
7. Effect of process temperature.
8. Effect of process pressure.
9. Method of solvent recovery.
10. Degree of solvent recovery.
11. Sensors calibration.

# TPCC Computer Controlled Contact Plate Freezer

with  
EDIBON  
SCADA

The Computer Controlled Contact Plate Freezer, "TPCC", allow the student to freeze food products quickly by using an industrial freezing process.

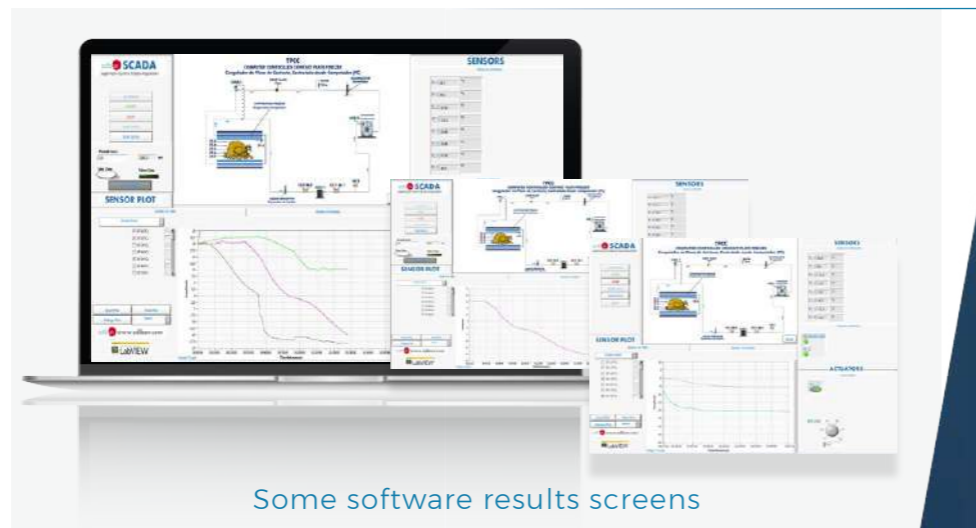


EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
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-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

## DIMENSIONS AND WEIGHTS

Dimensions: 1000 x 750 x 650 mm approx.  
(39.36 x 29.52 x 25.59 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



Some software results screens

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of industrial freezing processes in terms of preservation and effects on food.
2. Investigate the effect of the freezing process on the morphological characteristics of food: size, shape, etc.
3. Differences between freezing at home and industrial freezing (deep-freezing).
4. Assess the effect of freezing rates on food preservation.
5. Thermodynamic description of the process through temperature sensors.
6. Evaluation of taste and texture.
7. Study of the structural, composition and sensory effects of deepfreezing and thawing process.
8. Study of the fundamentals of a deep-freezing system.
9. Study of the operation, structure and elements of a deep-freezing system.
10. Analysis of the freezing curves.
11. Analysis of the theoretical freezing times.
12. Sensors calibration.

# BLIO Freeze Dryer

The Freeze Dryer, "BLIO", allows the study of the entire process of freeze drying in a compact unit.



EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software

## DIMENSIONS AND WEIGHTS

Dimensions: 575 x 420 x 400 mm approx.  
(22.63 x 16.53 x 15.74 inches approx.)  
Weight: 65 kg approx. (143 pounds approx.)

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the freeze drying process.
2. Study of the influence of the heating temperature in the freeze drying process.
3. Study of the influence of the pressure in the freeze drying process.
4. Evaluations of the freeze drying time necessary for each product.
5. Study of the influence of the condenser temperature in the freeze drying process.
6. Calculation of the amount of solvent removed from the solid.

edibon

# Experiences

“

Through my experience with EDIBON equipment, I have found their *solutions to be highly accurate, informative, and efficient*. Their systems not only support hands-on learning but also facilitate clear understanding of complex concepts, making them an *invaluable tool in both teaching and research*.

I appreciate EDIBON's commitment to *quality and innovation*, and I wish the company continued success in all its areas of development.

[BAHRAIN]

Review verified and validated by Google.



# 12.2 DAIRY PRODUCTS TREATMENT

12.2 DAIRY PRODUCTS TREATMENT

24



# DSNC Computer Controlled Teaching Cream Separator



The Computer Controlled Teaching Cream Separator, "DSNC", 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.



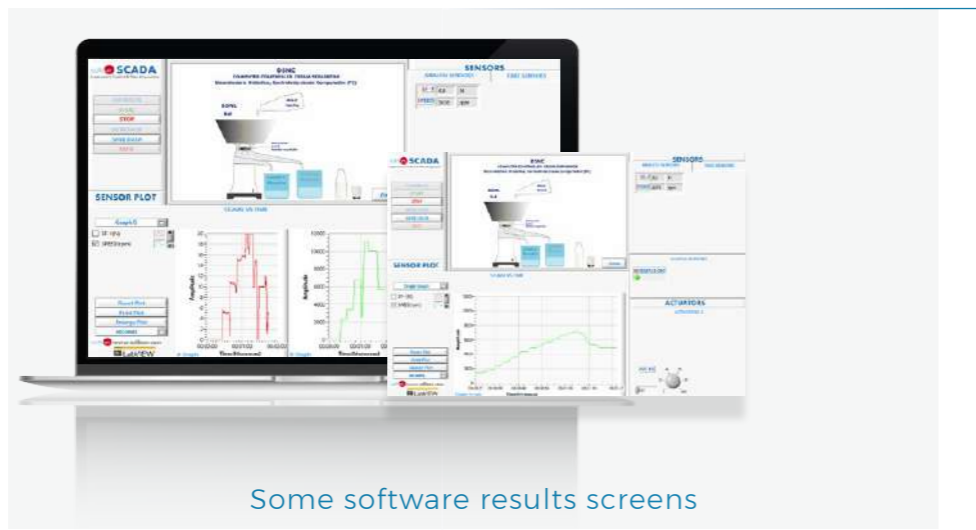
## EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

manual version AVAILABLE

### DIMENSIONS AND WEIGHTS

Dimensions: 500 x 500 x 500 mm approx.  
(19.68 x 19.68 x 19.68 inches approx.)  
Weight: 20 kg approx. (44 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

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.
8. Sensors calibration.

# EMANC Computer Controlled Butter Maker Teaching Unit



The Computer Controlled Butter Maker Teaching Unit, "EMANC", has been designed to introduce the user into the butter making process, a process that has basically remained the same from its origins.



## EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

manual version AVAILABLE

### DIMENSIONS AND WEIGHTS

Dimensions: 550 x 470 x 410 mm approx.  
(21.65 x 18.5 x 16.14 inches approx.)  
Weight: 40 kg approx. (66 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Production of butter from different types of liquid cream.
2. Production of butter by different methods with analytical and qualitative resolutions.
3. Temperature study and agitation during the process.
4. "Phase inversion" of the oil/water emulsion which occurs in churning.
5. Thermodynamic evolution analysis of the butter production process.
6. Study of the influence of the process time on the final product.
7. Study of the influence of the turning speed on the final product quality.
8. Sensors calibration.

# PADC Computer Controlled Teaching Autonomous Pasteurization Unit

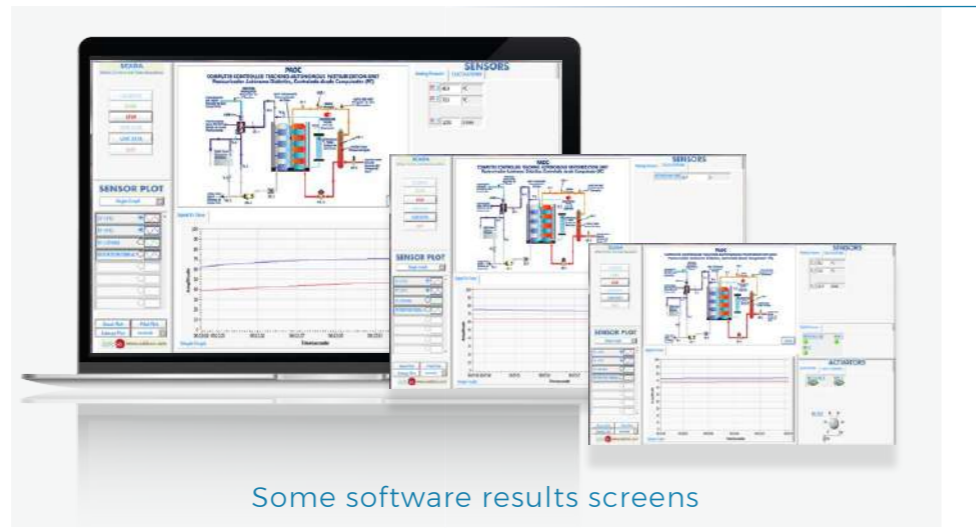
with  
EDIBON  
SCADA



The Computer Controlled Teaching Autonomous Pasteurization Unit "PADC" receives cold milk from a refrigeration tank (not included). The milk is impelled with a milk pump (computer controlled). It is heated in the heat exchanger, by counter-current flow, with hot water coming from a circuit formed by a water tank with a heating element (computer controlled), a water pump (computer controlled), a manometer, a security valve, an expansion vessel, a purge valve and a pressure regulator, until reaching the established pasteurization temperature.

## DIMENSIONS AND WEIGHTS

Dimensions: 1250 x 850 x 1550 mm approx.  
(49.21 x 33.46 x 61.02 inches approx.)  
Weight: 120 kg approx. (264 pounds approx.)



Some software results screens

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Introduction to the pasteurization process with water.
2. Introduction to the pasteurization process with milk.
3. Determination of the relation between the heating water temperature and the volume of liquid to be pasteurized.
4. Determination of the survival curve for different bacterial flora.
5. Determination of the threshold temperature for a constant milkwarming period of time.
6. Determination of the time required to obtain a volume of wanted sterility.
7. Determination of the time curve of the thermal reduction.
8. Sensors calibration.

# PASC Computer Controlled Laboratory Pasteurizer

with  
EDIBON  
SCADA



The Computer Controlled Laboratory Pasteurizer, "PASC", is a small scale continuous flow pasteurizer designed by EDIBON. It performs HTST pasteurization (High Temperature Short Time), which simulates the working conditions of a real plant. Nevertheless, small amounts of product can be pasteurized in a short period, resulting in an economical unit whose operation is easy to understand for students.

## EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ESN**  
EDIBON SCADA-Net
-  **ECL**  
EDIBON Cloud Learning

## DIMENSIONS AND WEIGHTS

Dimensions: 800 x 750 x 1000 mm approx.  
(31.49 x 29.52 x 39.37 inches approx.)  
Weight: 80 kg approx. (176 pounds approx.)



Some software results screens

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the HTST pasteurization of alimentary products.
2. Study of the destruction of damaging organisms.
3. Calibration of the peristaltic feed pump.
4. Start of the pasteurization plant, operation with water.
5. Determination of the relation between the heating water temperature according to the liquid flow to pasteurize.
6. Determination of the survival curve for the different bacterial floras.
7. Determination of the threshold temperature for a constant warming time of the product to treat.
8. Determination of the necessary time to obtain a desired sterility volume.
9. Determination of the thermal reduction time curve.
10. Study and application of the CIP cleaning of the pasteurizer.
11. Study of different chemical cleaning methods.
12. Sensors calibration.

# CCDC Computer Controlled Teaching Curdling Tank

with  
EDIBON  
SCADA

The Computer Controlled Teaching Curdling Tank, "CCDC", is employed to curdle milk in a tank with a water jacket and includes a set of accessories for the stirring, cutting and draining of the product.



EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

## DIMENSIONS AND WEIGHTS

Dimensions: 2100 x 800 x 1900 mm approx.  
(82.67 x 31.49 x 74.8 inches approx.)

Weight: 500 kg approx. (1102.31 pounds approx.)



Some software results screens

## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Familiarization with the performance of a curdling tank.
2. Study of the cultivation volume influence on the curdling process.
3. Study of the rennet volume influence on the curdling process.
4. Study of the influence of the curdling step duration on the curdling process.
5. Study of the influence of velocity during the curdling step on the curdling process.
6. Study of the influence of temperature during the curdling step on the curdling process.
7. Study of the influence of the cutting step duration on the curdling process.
8. Study of the influence of velocity during the cutting step on the curdling process.
9. Study of the influence of temperature during the cutting step on the curdling process.
10. Sensors calibration.

## EDIBON around the world Where are we making a difference?

As part of our commitment to global technical education, EDIBON has installed the Computer Controlled Cheese Vat (AEQC) at the Office de la Formation Professionnelle et de la Promotion du Travail (OFPPT).

This unit allows students to explore the full cheese-making process through practical, real-world training.

A step forward in supporting applied learning in the agri-food sector.

[MOROCCO]

# PVQC Computer Controlled Teaching Cheese Press



The Computer Controlled Teaching Cheese Press, "PVQC", consist of a pneumatic press to compress the fresh curd in order to remove excess of whey, since spoilage of the cheese is hastened by retention of too much water in the finished cheese.

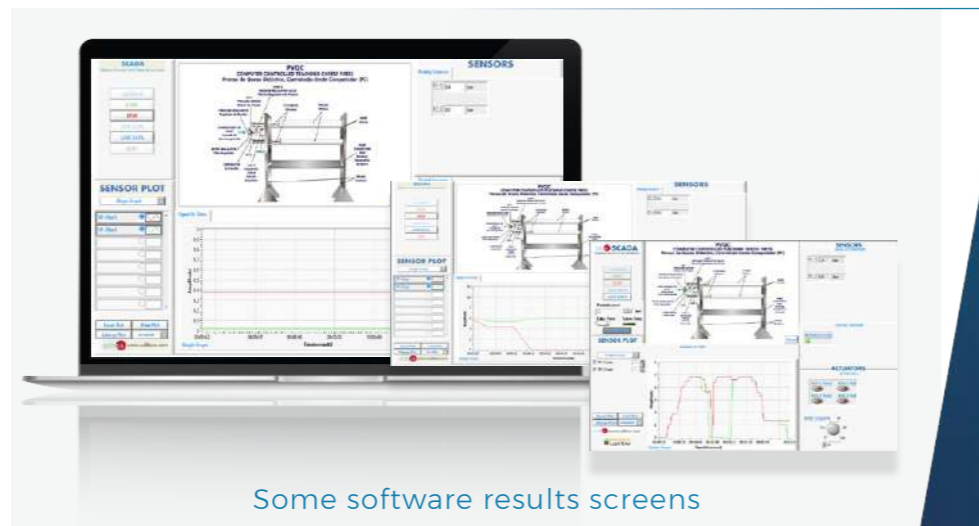


## EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO
- ESN**  
EDIBON SCADA-Net

### DIMENSIONS AND WEIGHTS

Dimensions: 1600 x 350 x 1500 mm approx.  
(62.99 x 13.77 x 59.05 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Familiarization with the performance of a pneumatic press.
2. Study of the influence of pressure on cheese.
3. Study of the influence of the type of mold on cheese.
4. Study of the influence of the pressing rate on cheese.
5. Study of the influence of moist in the curd on cheese.
6. Sensors calibration.

# DVCP Dutch Vat for Cheese Production (until 50l)



Dutch Vat for Cheese Production, "DVCP", reproduces a small scale cheese production system to study the whole process in a practical way.

## EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software

**DIMENSIONS AND WEIGHTS**  
Dimensions: 1100 x 400 x 1500 mm approx.  
(43.3 x 15.74 x 59.05 inches approx.)  
Weight: 100 kg approx. (22 pounds approx.)

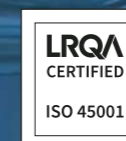
### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Familiarization with the performance of a curdling tank.
2. Study of the cultivation volume influence on the curdling process.
3. Study of the rennet volume influence on the curdling process.
4. Study of the influence of the curdling step duration on the curdling process.
5. Study of the influence of velocity during the curdling step on the curdling process.
6. Study of the influence of temperature during the curdling step on the curdling process.
7. Study of the influence of the cutting step duration on the curdling process.
8. Study of the influence of velocity during the cutting step on the curdling process.
9. Study of the influence of temperature during the cutting step on the curdling process.



# QUALITY & WARRANTIES

The company places a strong emphasis on quality and efficient management. A testament to this commitment is our certifications, which apply to design, manufacturing, sales, and after-sales service.



# IYDC Computer Controlled Teaching Yogurt Incubator

with EDIBON SCADA

The Computer Controlled Teaching Yogurt Incubator, "IYDC", is called yogurt maker or yogurt heater. This yogurt maker consists of an insulated central body where yogurt fermentation is carried out.



## EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 650 x 500 x 1100 mm approx.  
(25.59 x 19.63 x 43.3 inches approx.)  
Weight: 90 kg approx. (198 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Yogurt making process.
2. Measurement of the acidity in the yogurt obtained.
3. Measurement of the viscosity in the yogurt obtained.
4. Measurement of the two main bacteria used in the yogurt making process.
5. Comparison of the results obtained in function of the position of the container in the yogurt maker.
6. Viscosity change in function of the yogurt pH.
7. Differences in the yogurt when using whole milk or skimmed milk.
8. Sensors calibration.

# RDC Computer Controlled Teaching Cottage Cheese Maker

with EDIBON SCADA

The Computer Controlled Teaching Cottage Cheese Maker, "RDC", is a unit made of stainless steel AISI 304 with a cover at the top. The tank receives milk the bacteria culture and others additives and temperature in the tank increases. This process produces the precipitation of the proteins of the milk and curd is formed.

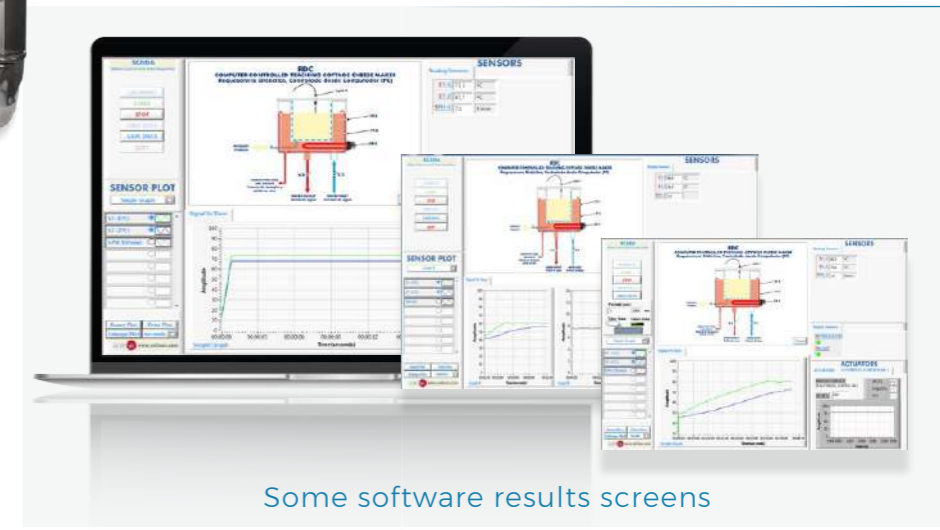


## EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 700 x 700 x 1700 mm approx.  
(27.55 x 27.55 x 66.92 inches approx.)  
Weight: 30 kg approx. (66 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Obtainment of whey.
2. Obtainment of cottage cheese.
3. Measurement of the cottage cheese acidity.
4. Determination of the efficiency of the cottage cheese.
5. Obtainment of cottage cheese by the traditional process.
6. Elaboration of cottage cheese (no traditional process).
7. Comparison of the study of acidity in different cottage cheese.
8. Determination of the proteins concentration.
9. Sensors calibration.



## Practical Education: *The Key to Preparing Future Professionals*

At EDIBON, we provide cutting-edge technical teaching and research solutions that empower professors, researchers, technicians and students to experiment, innovate, and create.

With a presence in over 140 countries, we equip universities, research and training centers with advanced, customizable technology in fields like energy, electricity, automation, etc.

***Would you like to visit us and see firsthand how we operate?***

# AEQC Computer Controlled Cheese Vat

with  
EDIBON  
SCADA

The Computer Controlled Cheese Vat, "AEQC", reproduces a small scale cheese production system to study the whole process in a practical way.



## EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 1000 x 650 x 600 mm approx.  
(39.37 x 25.59 x 23.62 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the cheese making process.
2. Milk heating and agitation.
3. Addition of starter culture and rennet.
4. Coagulation.
5. Curd cutting and heating.
6. Precision curd heating and agitation to scald the curd.
7. Curd settling.
8. Whey draining.
9. Curd milling.
10. Addition of salt.
11. Hard and soft cheese making.
12. Study of the pressing process (the AEQC-A accessory is required).
13. Acid testing (the AEQC-A accessory is required).

... and more

# EDLC Computer Controlled Liquid Packaging Teaching Unit

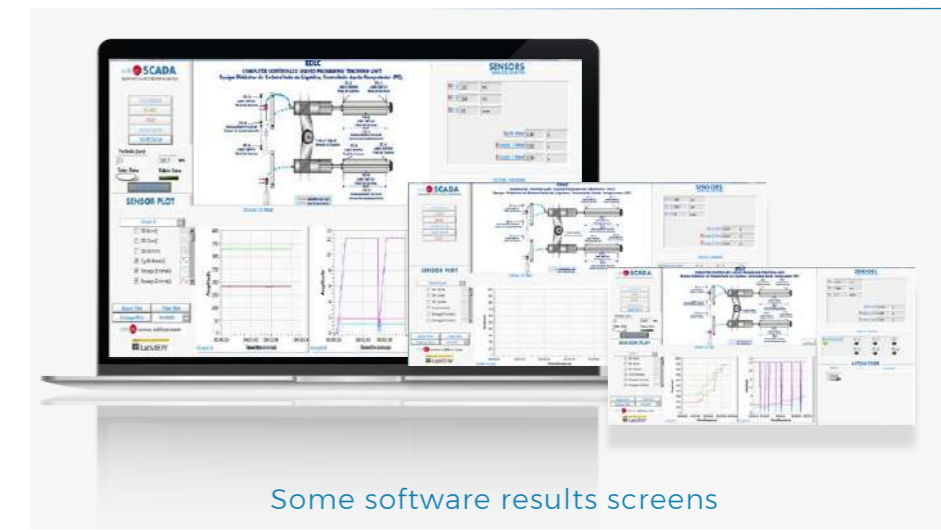
with  
EDIBON  
SCADA

The Computer Controlled Liquid Packaging Teaching Unit, "EDLC", unit is a liquid and semi-dense products dosing machine based on dose delivery through a pneumatically-operated cylinder.



### DIMENSIONS AND WEIGHTS

Dimensions: 1200 x 450 x 900 mm approx.  
(47.24 x 17.71 x 35.43 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Familiarization with the operation of a liquid filling machine.
2. Study of the influence of the product level regulation on the bottles.
3. Study of the influence of the type of liquid on the bottle filling.
4. Study of the liquid dosing during the filling process.
5. Sensors calibration.



# DRINKING WATER TREATMENT



# PEFC Computer Controlled Flocculation Test Unit

with EDIBON SCADA

The Computer Controlled Flocculation Test Unit, "PEFC", allows to study the coagulation and flocculation operations and to analyze the main parameters that determine the colloids removal operation.



- EXPANSIONS**
- ICAI**  
Interactive Computer Aided Instruction Software
  - FSS**  
Fault Simulation System
  - PLC**  
PLC Industrial Process Control
  - PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
  - ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
  - ECR**  
EDIBON Industrial Modular System with NI CompactRIO

manual version AVAILABLE

**DIMENSIONS AND WEIGHTS**

Dimensions: 750 x 250 x 500 mm approx. (29.53 x 9.84 x 19.68 inches approx.)  
Weight: 30 kg approx. (66 pounds approx.)



**GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL**

1. Determination of optimum coagulant dosage.
2. Study of coagula formation regarding to the mixing time and the agitation speed.
3. Determination of optimum Ph.
4. Coagulation test in conjunction with activated carbon.
5. Sensors calibration.

# PEAIC Computer Controlled Aeration Unit

with EDIBON SCADA

The Computer Controlled Aeration Unit, "PEAIC", designed by EDIBON, is a demonstration equipment of the water aeration process to mainly eliminate odors and tastes from the water. It allows the study of the oxygen transfer characteristics by means of different air diffusion systems, as well as the study of the mixing process.



- EXPANSIONS**
- ICAI**  
Interactive Computer Aided Instruction Software
  - FSS**  
Fault Simulation System
  - PLC**  
PLC Industrial Process Control
  - PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
  - ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
  - ECR**  
EDIBON Industrial Modular System with NI CompactRIO

manual version AVAILABLE

**DIMENSIONS AND WEIGHTS**

Dimensions: 600 x 700 x 850 mm approx. (23.62 x 27.55 x 33.46 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



**GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL**

1. Determination of the aeration needs.
2. Influence of the injected oxygen volume.
3. Influence of the stirrer turning speed.
4. Aeration with air injection and agitation.
5. Influence of the temperature in the process.
6. Influence of liquid level in the tank.
7. Influence of the water composition.
8. Sensors calibration.

# EFLPC Computer Controlled Deep Bed Filter Unit

with EDIBON SCADA



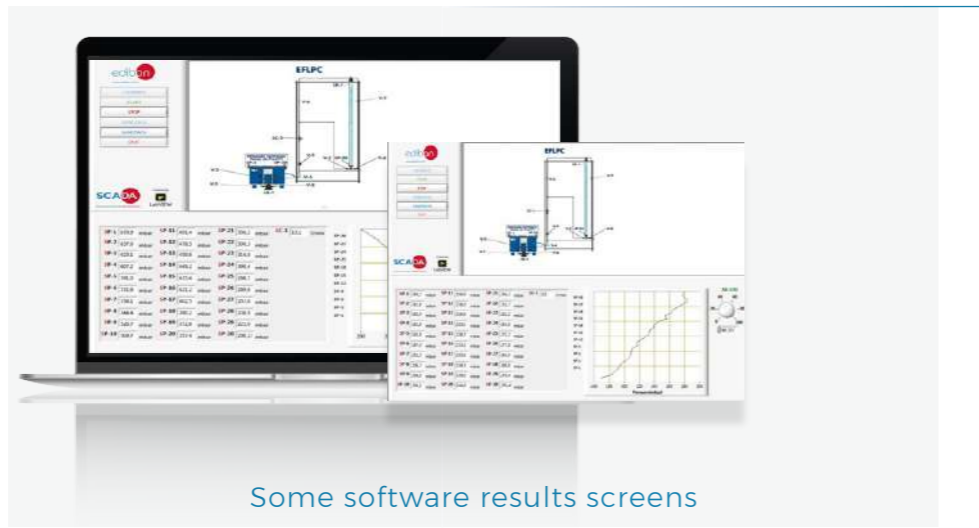
The Computer Controlled Deep Bed Filter Unit, "EFLPC", enables to study filtration in open and closed circuit, as well as to visualize the bed washing process.

EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO

DIMENSIONS AND WEIGHTS

Dimensions: 1600 x 1500 x 2500 mm approx.  
(62.99 x 59.05 x 98.42 inches approx.)  
Weight: 250 kg approx. (551.15 pounds approx.)



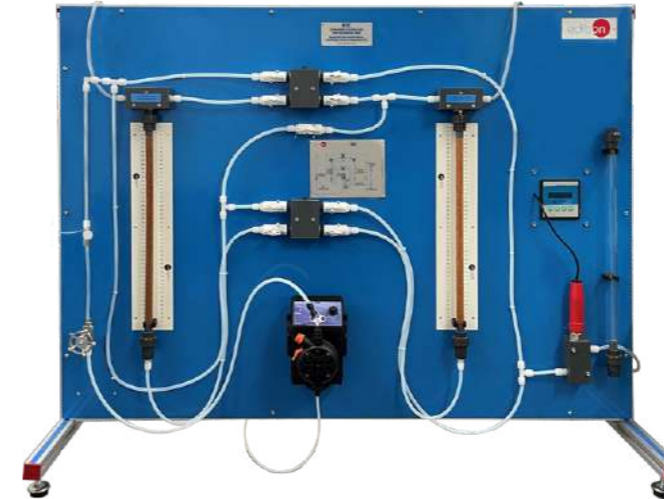
Some software results screens

GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Determination of the initial head loss of a deep bed.
2. Evolution through time of the head loss of the deep bed.
3. Measuring pressure drop profiles through the bed.
4. Demonstration of reversed flow and backwashing fluidisation.
5. Filtering in open and closed circuit.
6. Sensors calibration.

# EIIC Computer Controlled Ion Exchange Unit

with EDIBON SCADA



The Computer Controlled Ion Exchange Unit, "EIIC", has been designed by EDIBON to study water softening in a single bed or water demineralization in a double bed system.

EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ESN**  
EDIBON SCADA-Net

manual version AVAILABLE

DIMENSIONS AND WEIGHTS

Dimensions: 1200 x 500 x 1000 mm approx.  
(47.24 x 19.68 x 39.37 inches approx.)  
Weight: 50 kg approx. (110.2 pounds approx.)



Some software results screens

GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of ion exchange general techniques.
2. Familiarization with the operation modes of ion exchange in columns.
3. Exchange capacities of different resins.
4. Analysis of the water softening process with cationic resin.
5. Analysis of the demineralization process.
6. Demineralization with double bed exchange.
7. Regeneration efficiency of a cationic and an amionic resin.
8. Study of the operation of a conductivity meter.
9. Regeneration efficiency of a water softening system
10. Sensors calibration.

# PCCAC Computer Controlled Water Quality Control Unit

with  
EDIBON  
SCADA



Water is impelled by a pump from a supply tank towards a first transparent tank equipped with a stirrer and a conductivity sensor.

EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO
-  **ESN**  
EDIBON SCADA-Net

## edibon Experiences

“When it comes to technical training equipment, the name to trust is EDIBON. Our experience with EDIBON spans over 15 years, and the support from the EDIBON team is highly commendable.

EDIBON's clear teaching manuals and student guides make practical training easy to understand, and its SCADA technology provides a real-time industrial system experience.

I highly recommend EDIBON as your next training system.

[UNITED STATES OF AMERICA]

*Review verified and validated by Google.*

### DIMENSIONS AND WEIGHTS

Dimensions: 1700 x 700 x 1900 mm approx.  
(66.93 x 27.56 x 74.8 inches approx.)

Weight: 160 kg approx. (352.7 pounds approx.)



### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study and influence of the main physical-chemical parameters on the water quality.
2. Analysis of the conductivity, pH, oxygen concentration and redox potential of water.
3. Influence of caustic soda on the electric conductivity of water.
4. Influence of caustic soda on the water pH.
5. Influence of sulfuric acid on the water pH.
6. Influence of air injection on the water oxygen concentration.
7. Influence of iodine on the water redox potential.
8. Analysis and study of different types of control P, PD, PI, PID.
9. Sensors calibration

# SPFC Computer Controlled Sedimentation, Precipitation and Flocculation Unit



The Computer Controlled Sedimentation, Precipitation and Flocculation Unit, "SPFC", has been designed by EDIBON to study the parameters that affect the physicochemical treatment of wastewater for purification.



EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ESN**  
EDIBON SCADA-Net

manual version AVAILABLE

### DIMENSIONS AND WEIGHTS

Dimensions: 1100 x 800 x 800 mm approx.  
(43.3 x 31.49 x 31.49 inches approx.)  
Weight: 50 kg approx. (110 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Familiarization with precipitation, flocculation and sedimentation processes.
2. Analysis of the pH influence on precipitation.
3. Analysis of the stirring influence on precipitation, coagulation and flocculation.
4. Study of the operation of a lamella separator and influence of the number of lamellas.
5. Quantitative analysis of the amount of precipitant, coagulant and flocculant in the water treatment process.
6. Determination of a steady operating state.
7. Sensors calibration.

# ROUC Computer Controlled Reverse Osmosis/ Ultrafiltration Unit



The Computer Controlled Reverse Osmosis/Ultrafiltration Unit, "ROUC", allows the practical study of the ultrafiltration and reverse osmosis techniques.



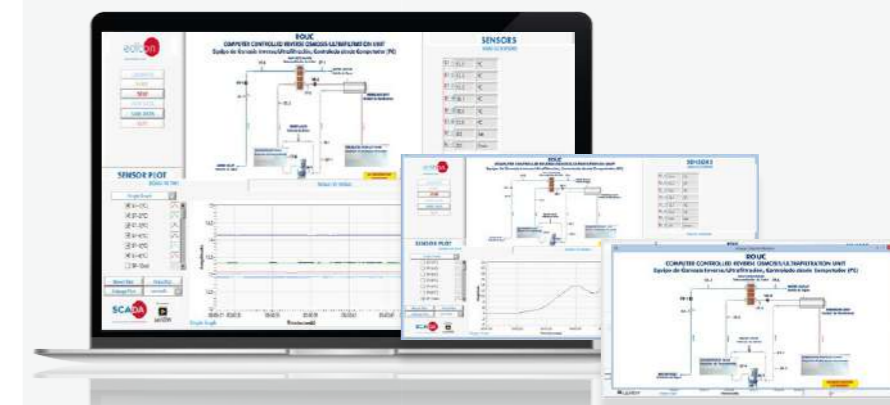
EXPANSIONS

- ICAI**  
Interactive Computer Aided Instruction Software
- FSS**  
Fault Simulation System
- PLC**  
PLC Industrial Process Control
- PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
- ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
- ECR**  
EDIBON Industrial Modular System with NI CompactRIO



### DIMENSIONS AND WEIGHTS

Dimensions: 800 x 800 x 1000 mm approx.  
(31.5 x 31.5 x 39.37 inches approx.)  
Weight: 165 kg approx. (363 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Practical training in ultrafiltration and reverse osmosis processing techniques.
2. Protein standardization in the production of fermented milk products such as concentration of skimmed milk for yogurt production.
3. Pre-concentration of milk for cheese manufacture.
4. Concentration of fruit juices.
5. Clarification of fruit juices.
6. Water potabilization.
7. Demonstration of the effect of varying the following process parameters on separation performance:
8. Process pressure.
9. Product flow rate.
10. Process temperature.
11. Sensors calibration

# PEAC Computer Controlled Adsorption Unit

with  
EDIBON  
SCADA

The Computer Controlled Adsorption Unit, "PEAC", demonstrates the removal of substances dissolved by adsorption.

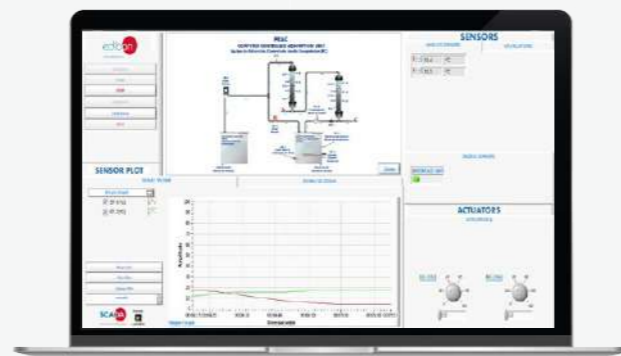
## EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

### DIMENSIONS AND WEIGHTS

Dimensions: 1300 x 750 x 1850 mm approx.  
(51.18 x 29.52 x 72.83 inches approx.)

Weight: 150 kg approx. (330 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study and analysis of the adsorption process of substances dissolved in activated carbon.
2. Influence of raw water temperature in the adsorption process.
3. Influence of the contact time between raw water and adsorbent in the adsorption process.
4. Influence of the operation mode in the adsorption process.
5. Influence of adsorbate concentration in the adsorption process.
6. Efficiency of an adsorber.
7. Mass balance of an adsorber.
8. Representation of concentration profiles and rupture curves.
9. Relationship between concentration profiles and rupture curves.
10. Study of the mass transfer zone.
11. Sensors calibration.

## EDIBON around the world Where are we making a difference?

As part of this project, we installed our *Computer Controlled Water Treatment Plant (PPTAC2)*, along with a full set of training equipment covering areas like energy, fluid mechanics, refrigeration, and automotive systems.

This complete laboratory is designed to offer students practical, hands-on experience with real-world technologies.

We thank *Centre de Formation aux Métiers de l'Industrie (CFMI)* for their trust.

[TOGO]

# PFADC Computer Controlled Dissolved Air Flotation Unit

with EDIBON SCADA



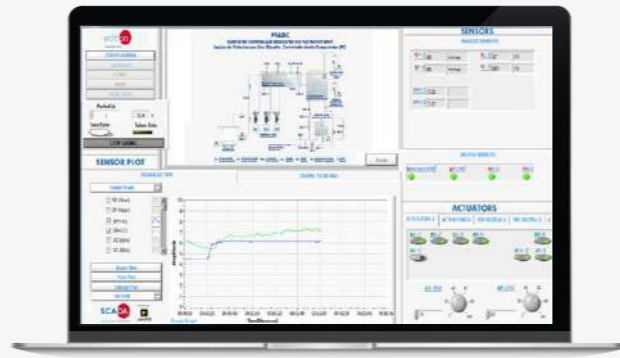
The Computer Controlled Dissolved Air Flotation Unit, "PFADC", has been designed to study the flotation treatment process. For that purpose, raw water with different chemical products will be treated. Flotation is achieved when a fluid with suspended solids is depressurized and bubbles appear. Solid particles adhere to the bubbles and rise with them, being separated from the fluid.

EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO
-  **ESN**  
EDIBON SCADA-Net

### DIMENSIONS AND WEIGHTS

Dimensions: 1500 x 800 x 1000 mm approx.  
(59.05 x 31.49 x 39.37 inches approx.)  
Weight: 500 kg approx. (1102.31 pounds approx.)



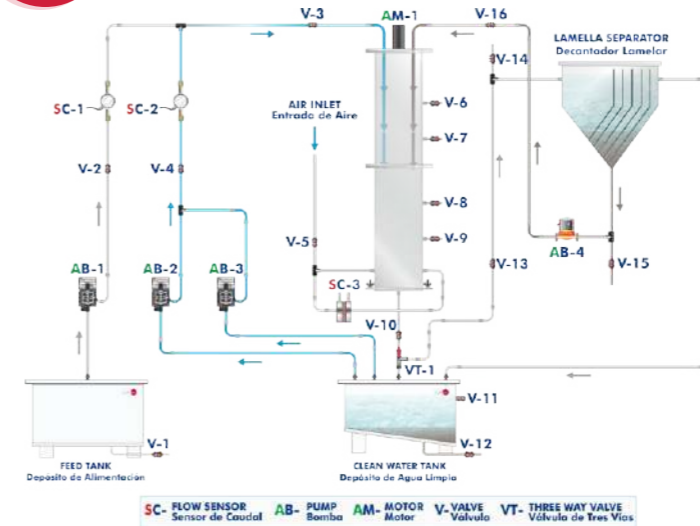
Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study of the flocculation and flotation processes.
2. Operation of the unit to obtain steady working conditions.
3. Influence of the coagulant concentration on the results.
4. Influence of the coagulant flocculant on the results.
5. Analysis of the stirring influence on the flocculation process.
6. Calculation of the hydraulic loading rate (rising velocity).
7. Sensors calibration.

# PPBC Computer Controlled Biofilm Process Unit

with EDIBON SCADA



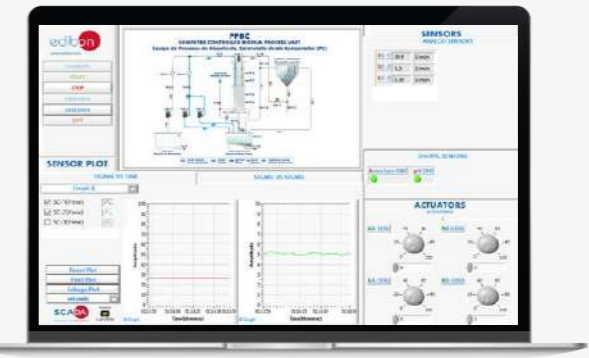
The Computer Controlled Biofilm Process Unit, "PPBC", has been designed to study the operation of a trickling filter, which removes microorganisms and filters contaminated water. The unit simulates the treatment given to water in a wastewater treatment plant.

EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO
-  **ESN**  
EDIBON SCADA-Net

### DIMENSIONS AND WEIGHTS

Dimensions: 2800 x 790 x 2000 mm approx.  
(110.23 x 31.1 x 78.74 inches approx.)  
Weight: 500 kg approx. (1102.31 pounds approx.)



Some software results screens

### GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Studying and understanding the functions of a trickling filter.
2. Operation of the unit to achieve stable working conditions.
3. Study of the unit operation depending on the recirculation flow rate.
4. Study of the unit operation depending on the volumetric loading of the filter.
5. Study of the unit operation depending on the surface loading of the filter.
6. Concentration profiles recording.
7. Influence of the carrier material on the results.
8. Sensors calibration.

# PPTAC/1 Computer Controlled Water Treatment Plant (filtration, adsorption, and ion exchange)

# PPTAC/2 Computer Controlled Water Treatment Plant (filtration and ion exchange)

with  
EDIBON  
SCADA

The Computer Controlled Water Treatment Plant 1, "PPTAC/1", designed by EDIBON, allows to study the main principle of the critical operations in the water treatment.

with  
EDIBON  
SCADA

The Computer Controlled Water Treatment Plant 2, "PPTAC/2", allows to simulate a water treatment plant and to demonstrate two operations of water treatment: depth filtration and ion exchange.



EXPANSIONS

-  **ICAI**  
Interactive Computer Aided Instruction Software
-  **FSS**  
Fault Simulation System
-  **PLC**  
PLC Industrial Process Control
-  **PLCHMI**  
IIoT local/remote Control and Monitoring with HMI
-  **ELK**  
EDIBON Software Development KIT, Powered by NI LabVIEW™
-  **ECR**  
EDIBON Industrial Modular System with NI CompactRIO

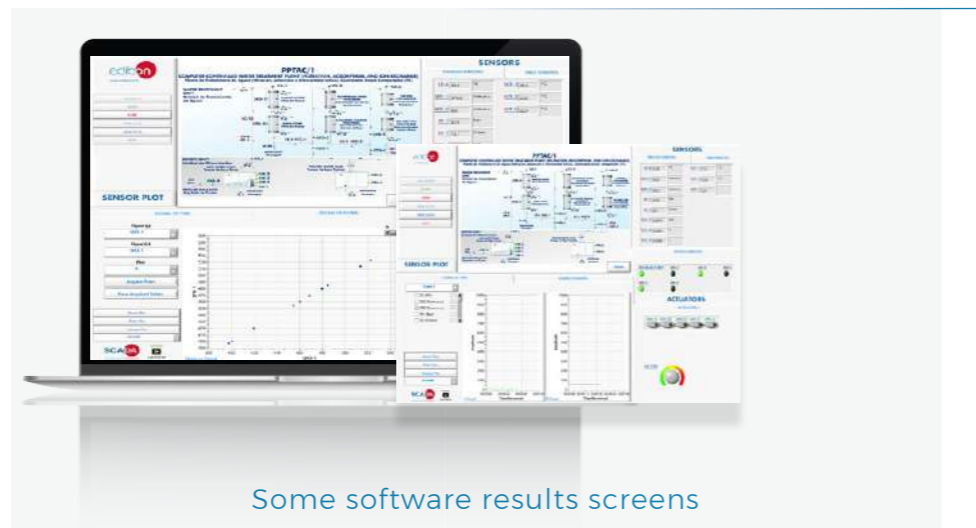


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## DIMENSIONS AND WEIGHTS

Dimensions: 1100 x 620 x 850 mm approx.  
(43.3 x 24.4 x 33.46 inches approx.)  
Weight: 40 kg approx. (88 pounds approx.)

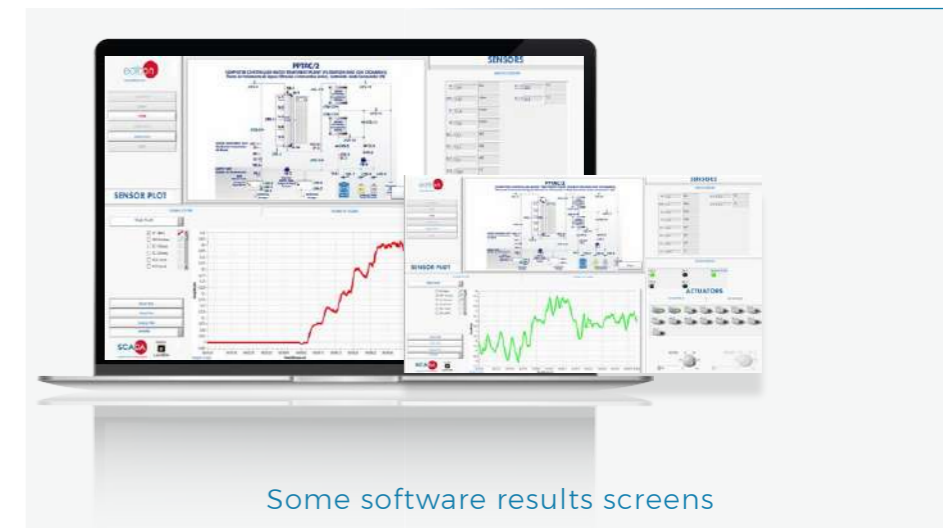


## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study the main principle of the water treatment plant.
2. Study the main principle of the water treatment plant operations: depth filtration, adsorption and ion exchange.
3. Determination of the pressure drop in depth filtration.
4. Study of the pressure drop and solid concentration in filtrate with the time.
5. Study of the breakthrough curves (adsorbate concentrations at the outlet of an adsorber over time) in the adsorption step.
6. Comparison of various adsorption materials.
7. Familiarization with the fundamental principle of ion exchange.
8. Study of the relationship between solid concentration and sedimentable solids for the solids used.
9. Sensors calibration.

## DIMENSIONS AND WEIGHTS

Dimensions: 1600 x 100 x 450 mm approx.  
(62.99 x 3.94 x 17.72 inches approx.)  
Weight: 100 kg approx. (220.46 pounds approx.)



## GUIDED PRACTICAL EXERCISES INCLUDED IN THE MANUAL

1. Study the main principle of the water treatment plant.
2. Study the main principle of the water treatment plant operations: depth filtration and ion exchange.
3. Observation and determination of the pressure loss in a sand filter.
4. Study and plot of Micheau diagrams.
5. Study of the principle of backwash.
6. Study of the pressure loss and solid concentration in filtrate with the time.
7. Familiarization with the fundamental principle of ion exchange.
8. Identification of the different modes of operation of cation and anion exchangers.
9. Study of the regeneration of ion exchangers.

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We'd be **HAPPY TO WELCOME YOU** and explore together how we can **BRING YOUR PROJECT TO LIFE**



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more information

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