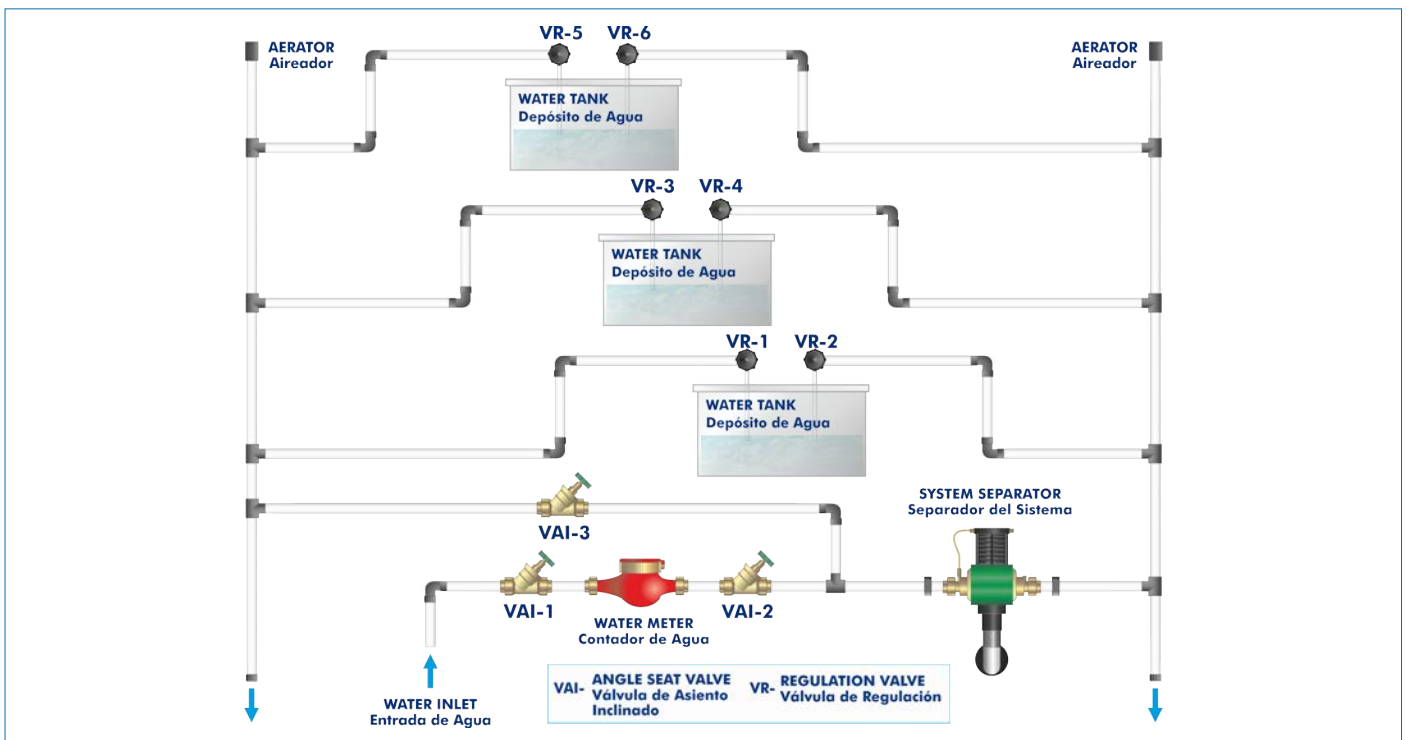


PROCESS DIAGRAM AND UNIT ELEMENTS ALLOCATION



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)



Certificate and Worlddidac Member

INTRODUCTION

The supply of drinking water to a house requires three types of systems: cold water, hot water and sanitation, which includes the removal of waste water and rain water. Drinking water enters the house through the supply pipeline, which is the point where the house system is connected to the mains.

Drinking water can be consumed to drink or prepare food without restriction. It should not contain microorganisms or substances that may cause diseases or harm health.

Cold water systems intended for human consumption consists of several elements, such as tanks, pipes, fittings, etc. that may be in perfect conditions to guarantee safety and hygiene, preventing micro-bacteria development. In this type of system, special attention must be paid to the development of Legionella, a bacteria living in stagnant waters or water with organic matter.

For that reason, it is important to protect drinking water systems, dealing with possible backflow of wastewater into the drinking water pipe.

GENERAL DESCRIPTION

The Protection of Drinking Water Training Unit, "TPAP", has been designed by EDIBON to study cases in which the drinking water system is contaminated with wastewater. It is specially designed for the training of students in the plumbing sector.

The Protection of Drinking Water Training Unit, "TPAP" simulates a drinking water system of a four-floor house. The drinking water intake is located in the lowest floor (basement). Water is distributed from there, passes through an industrial meter, where the flow rate is registered, and is directed towards the six outlet valves that lead to three tanks made of PMMA.

The contamination of the drinking water is simulated by a possible pipe fracture or pressure drop, which would cause the backflow of wastewater to the drinking water pipe.

The unit includes: protection devices against wastewater backflow; pipe separators that guarantee that the water entering the system, at 1.5 bar approx., does not go back to the mains; backflow preventers that close the passage of the liquid flowing in one direction completely and allow the passage of the liquid in the other direction; pipe vents to remove air from the pipes; and two drain faucets.

SPECIFICATIONS

Anodized aluminum frame and panels made of painted steel.

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

It includes wheels to facilitate its mobility.

Six water outlet with hose connections.

Six valves to regulate the water outlet.

Two drain faucet.

Three tanks made of PMMA with capacity of 7 l.

Industrial meter to measure the flow entering the pipe network.

Backflow protection devices:

Pipe separator: $\varnothing = 20$ mm.

Two backflow preventers: $\varnothing = 20$ mm.

Two air riser vents: $\varnothing = 20$ mm.

Pipe vent with backflow preventer: $\varnothing = 20$ mm.

Pipe vent without backflow preventer: $\varnothing = 20$ mm.

Two sealing plugs for the vents: $\varnothing = 20$ mm.

Two transparent pipes of $\varnothing = 20$ mm to observe the inside.

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

EXERCISES AND PRACTICAL POSSIBILITIES

- 1.- Study of a drinking water system.
- 2.- Study of the safety and hygiene of drinking water pipes.
- 3.- Understanding different safety devices used in drinking water systems.
- 4.- Study of the operation of pipe separators.
- 5.- Study of the operation of air vents.
- 6.- Study of the operation of backflow preventers.
- 7.- Study of the protection measures of drinking water systems to prevent wastewater backflow into the drinking water pipe.

REQUIRED SERVICES

- Water intake to 1.5 bar.

DIMENSIONS AND WEIGHTS

TPAP:

-Dimensions: 1 600 x 200 x 1 200 mm approx.
(62.99 x 7.87 x 47.24 inches approx.)

-Weight: 50 Kg approx.
(110.23 pounds approx.)

TPAP/ICAI. Interactive Computer Aided Instruction Software System:



With no physical connection between unit and computer (PC), 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.

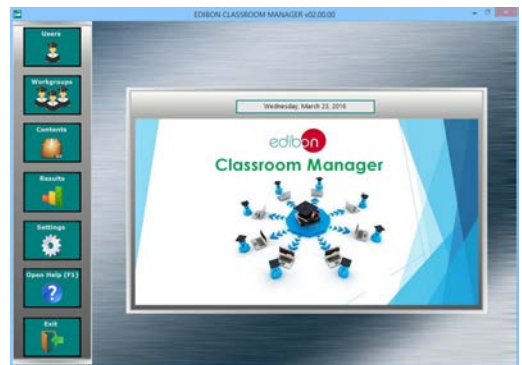
Instructor Software

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

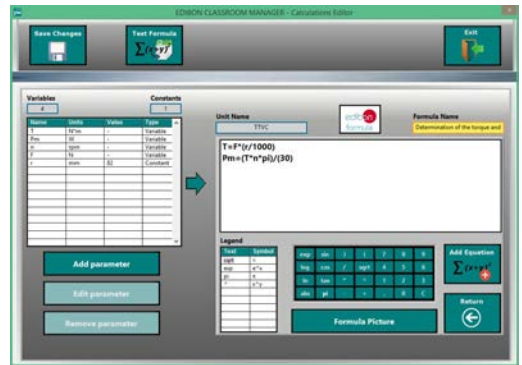
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

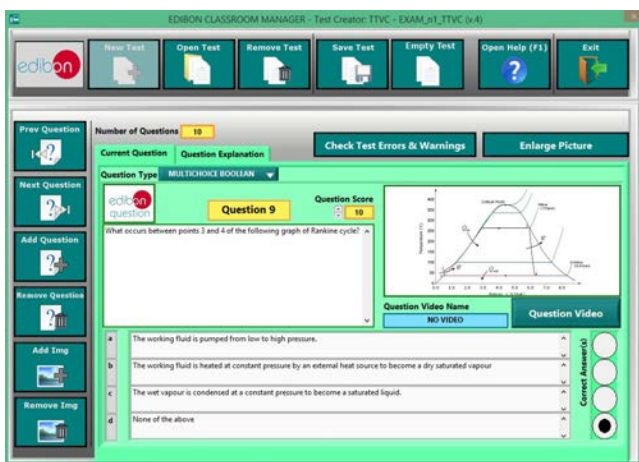
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

Optional
Student Software

- **ESL-SOF. EDIBON Student Labsoft (Student Software).**

ESL-SOF is the application addressed to the Students that helps them to understand theoretical concepts by means of practical exercises and to prove their knowledge and progression by performing tests and calculations in addition to Multimedia Resources. Default planned tasks and an Open workgroup are provided by EDIBON to allow the students start working from the first session. Reports and statistics are available to know their progression at any time, as well as explanations for every exercise to reinforce the theoretically acquired technical knowledge.

Innovative features:

- Student Log-In & Self-Registration.
- Existing Tasks checking & Monitoring.
- Default contents & scheduled tasks available to be used from the first session.
- Practical Exercises accomplishment by following the Manual provided by EDIBON.
- Evaluation Methods to prove your knowledge and progression.
- Test self-correction.
- Calculations computing and plotting.
- Equation System Solver Engine.
- User Monitoring Learning & Printable Reports.
- Multimedia-Supported auxiliary resources.

For more information see ICAI catalogue. Click on the following link:

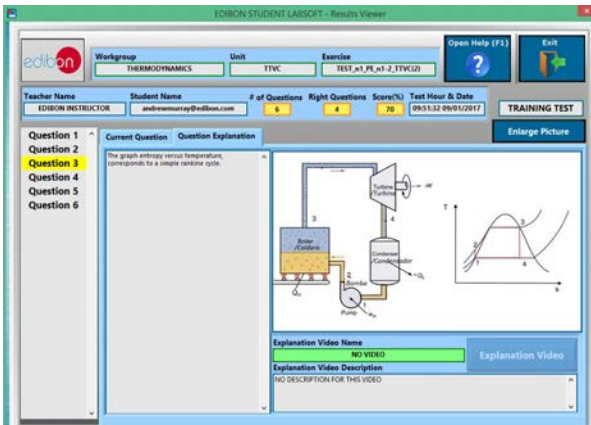
www.edibon.com/en/files/expansion/ICAI/catalog



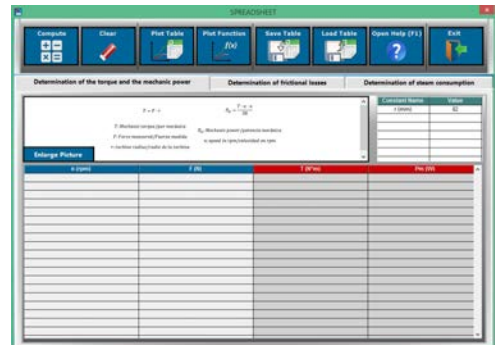
ESL-SOF. EDIBON Student LabSoft (Student Software) Application Main Screen



EPE. EDIBON Practical Exercise Program Package Main Screen



ERS. EDIBON Results & Statistics Program Package - Question Explanation



ECAL. EDIBON Calculations Program Package Main Screen

* Specifications subject to change without previous notice, due to the convenience of improvement of the product.



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REPRESENTATIVE:

