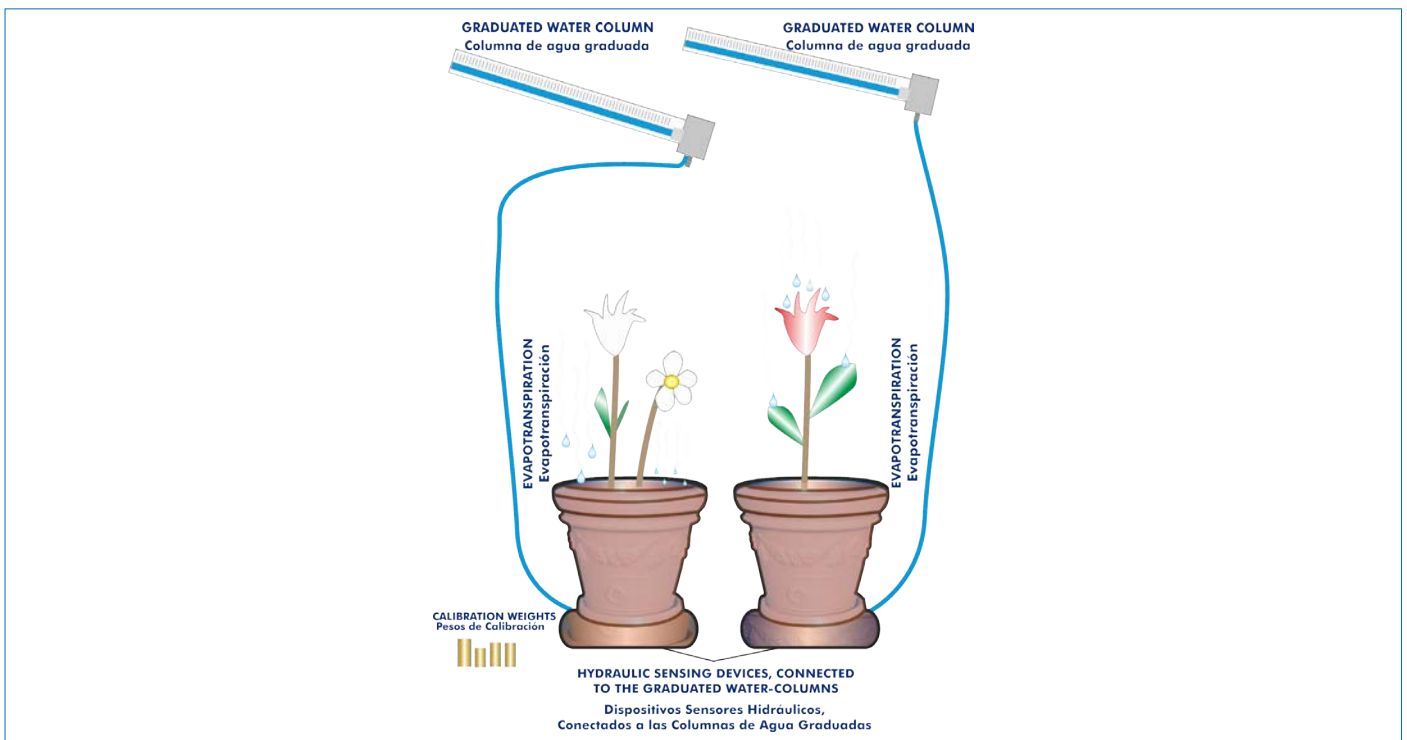




PROCESS DIAGRAM AND UNIT ELEMENTS ALLOCATION



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

A lysimeter is a device introduced in the ground, filled with the same soil of the place under study and with vegetation. It is used to measure the reference evapotranspiration (ET_o) or the crop evapotranspiration (ET_c). It is also called evapotranspiration meter, depending on the way the measuring procedure is done.

The evapotranspiration measurement is determined by the water balance of the devices. There is usually a weighting scale at the bottom of the lysimeter where the amount of water being evapotranspired in the system can be determined. Other type of lysimeter uses a water drain system instead of a weighting scale, being the amount of water drained equals exactly the amount of evapotranspired water, which is the field capacity.

The Demonstration Lysimeter, "PL", allows the user to measure the evapotranspiration of a field.

GENERAL DESCRIPTION

The Demonstration Lysimeter, "PL", is a unit designed by EDIBON to measure the evapotranspiration using the water balance method.

The unit consists of two independent lysimeters that allows the user to perform two practical exercises at the same time. Water losses or increases of the analyzed soil can be measured by two inclined-tube manometers.

Each lysimeter consists of a square-based vessel with a hydraulic device inside that, connected to the graduated tubes, allows the user to observe changes in the water level.

There is a vessel on each hydraulic device. Each vessel is filled with soil to plant the vegetation in order to analyze their evapotranspiration. Two lids are included to cover the top of the vessels, so water losses by evaporation are reduced and only transpiration is studied.

There is a tank and a pipe to fill the hydraulic device with water so that it transfers the pressure exerted by the weight of each vessel to both graduated tubes.

Besides, a set of weights to calibrate the manometric tubes in function of the weight change to which the hydraulic device is subjected are supplied with the unit.

SPECIFICATIONS

Anodized aluminum frame and panels made of painted steel.

The unit includes wheels to facilitate its mobility.

Main metallic elements made of stainless steel.

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

Two squared base recipients and two inner discs to support soil filled containers and plants.

Two hydraulic sensing devices located in the squared base recipients, connected to the graduated water columns.

Two graduated water columns (graduated manometric tubes), mounted on the front panel, above the lysimeters.

Two 300 mm approx. diameter containers. Each container can then in turn be placed on a hydraulically mounted plate which is used to monitor system weight changes arising for evapotranspiration.

Set of calibration weights (two of 2.5 Kg, one of 0.5 Kg, two of 200 g and two of 100 g).

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



PL detail

EXERCISES AND PRACTICAL POSSIBILITIES

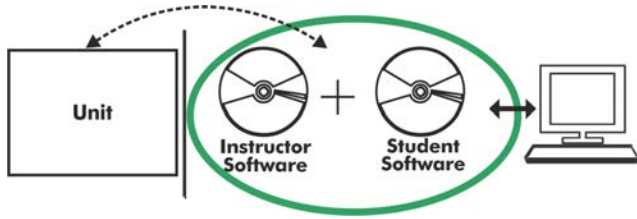
- 1.- Study of the evapotranspiration measurement by the water-balance method.
- 2.- Study of a lysimeter operation.
- 3.- Measurement of the evapotranspiration in a grass crop.
- 4.- Study of the influence of the leaf size in the evapotranspiration.
- 5.- Study of the influence of the evaporation in the evapotranspiration.
- 6.- Determination of the plants water use.
- 7.- Study and understanding of the relationship between reference maximum transpiration and actual transpiration.

DIMENSIONS AND WEIGHTS

PL:

- Dimensions: 800 x 600 x 1100 mm approx. (31.49 x 23.62 x 43.30 inches approx.).
- Weight: 40 Kg approx. (88 pounds approx.).

PL/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.

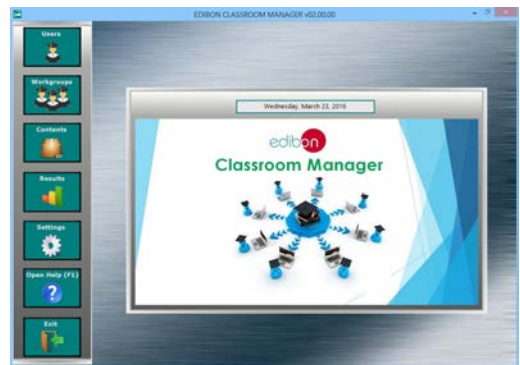
Instructor Software

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

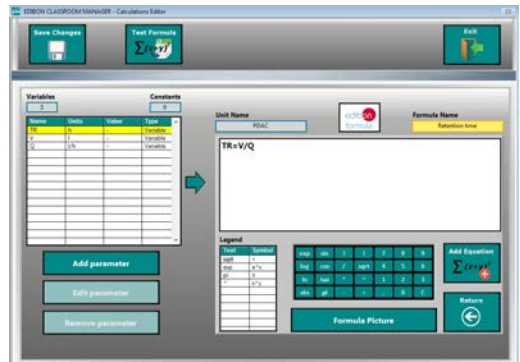
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

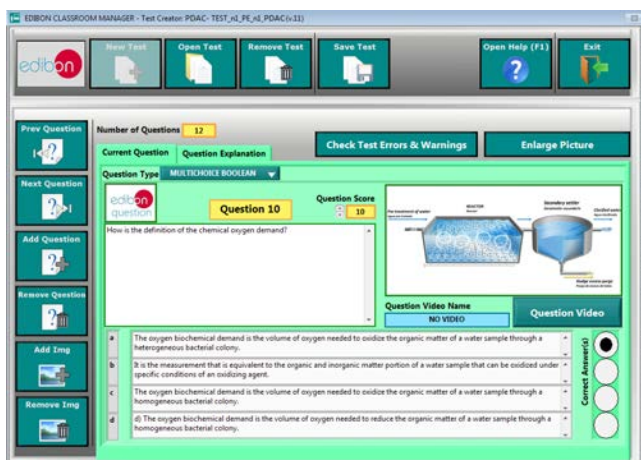
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

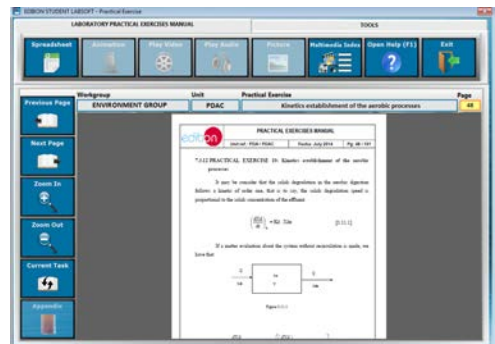
- Student Log-In & Self-Registration.
- Existing Tasks checking & Monitoring.
- Default contents & scheduled tasks available to be used from the first session.
- Practical Exercises accomplishment by following the Manual provided by EDIBON.
- Evaluation Methods to prove your knowledge and progression.
- 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:

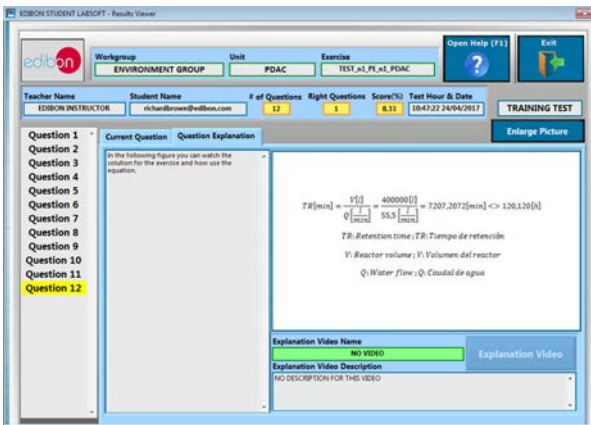
www.edibon.com/en/files/expansion/ICAI/catalog



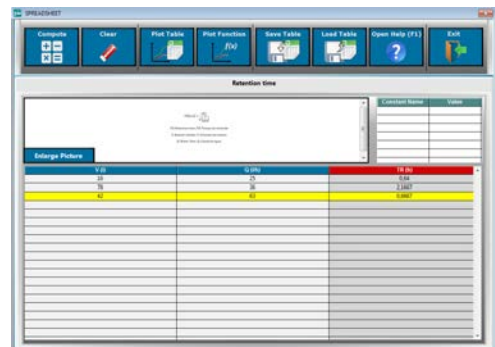
ESL-SOF. EDIBON Student LabSoft (Student Software) Application Main Screen



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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Edition: ED01/17
Date: August/2017

REPRESENTATIVE:

