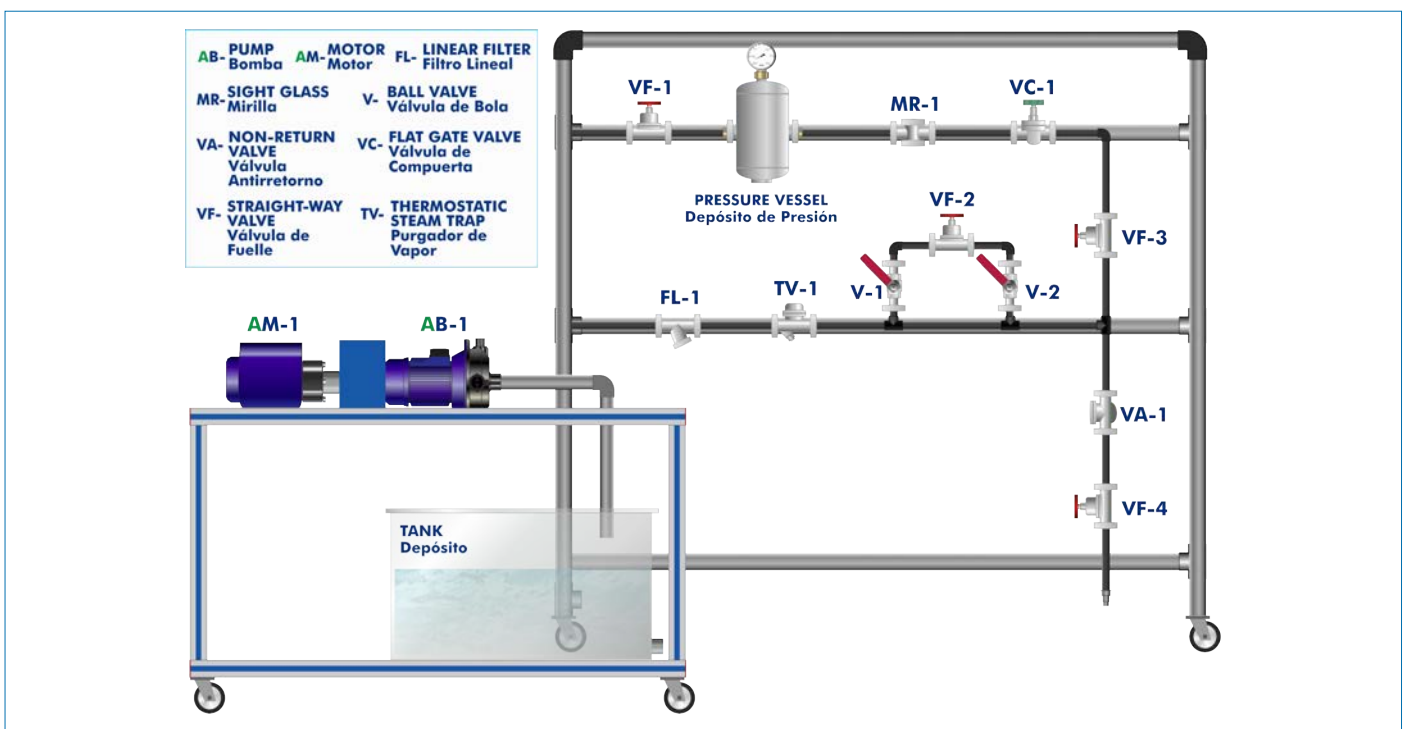




PROCESS DIAGRAM AND UNIT ELEMENTS ALLOCATION



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

Water is essential both at home and at industrial level, giving rise to a large field of application concerning water storage and distribution. For this reason, the training of professionals related to the discipline, particularly to the design, installation and maintenance of piping systems for water distribution is fundamental. In this sense, the "PVFA" unit, designed by EDIBON, offers a complete training plan in the field of hydraulic systems, covering from the design and selection of components and the mounting and installation of elements to their setting up.

GENERAL DESCRIPTION

The Pipes, Valves and Fittings Assembly Unit, "PVFA", designed by EDIBON, consists of a solid and rigid U-shape frame where a series of real pipes and fitting are mounted to form a complete hydraulic system. All the elements include connection flanges and sealing elements that allow for working in group to easily mount and dismount each accessory repeatedly. Together with the basic elements, a pressure vessel and a technical description of all the components, useful to design and size the installation, are included.

After mounting the system, it can be tested with the water supplied by a portable unit called PVFA/AA (Assembly and Alignment of Pumps and Driving Motor). It is equipped with a centrifugal pump driven by an electric motor, an additional tank and a manometer to measure the water pressure at its outlet. Apart from supplying water, the portable unit will enable the user to practice with the procedure to follow to change the pump, to align it and to start it. The unit is also supplied with well-structured teaching material, with examples of real systems and installations that facilitate the learning process and guide the user along the practical exercises proposed.

SPECIFICATIONS

U-shape frame to mount the piping.

The unit includes wheels to facilitate its mobility.

Pressure vessel with manometer:

DN15 connector for PN16.

Manometer: 0 - 4 bar.

Set of piping elements with flange:

Material: grey cast iron.

Sizes:

DN15 and DN25 for PN16.

DN40 for PN10.

Connecting elements:

Types: flange and cutting ring screw fitting.

Sizes: DN40, DN25, DN15 and G $\frac{1}{2}$ ".

Set of valves and accessories made of stainless steel and cast iron:

Gate valve: DN40 for PN16.

Bellows valves: DN15 and DN25 for PN16.

Ball valves: DN40 and DN15 for PN16.

Ball valves with cutting ring screw fitting in G $\frac{1}{2}$ ".

Steam trap: DN25 for PN40.

Sight glasses: DN15 for PN25.

Check valve: DN15 for PN16.

Flanged filter in DN15 for PN16.

Seat valve: DN25 for PN16.

Water supply quick release fitting.

Two manometers to locate at different points of the system. Range: 0 - 4 bar.

Set of tools.

Description and technical drawings of all the components and examples of circuits and systems.

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.

Recommended accessories: (Not included)

- PVFA/AA. Assembly and Alignment of Pumps and Driving motor.

Centrifugal pump: 580 l/min; 18.8 m.

Single-phase motor.

Storage tank. Volume: 140 l.

Manometer. Range: 0.4 bar.

EXERCISES AND PRACTICAL POSSIBILITIES

- 1.- Principles and main elements of a hydraulic system.
- 2.- Construction and operation of fittings and valves, pipes and system accessories.
- 3.- Design of diagrams and planning of installations according to requirements.
- 4.- Selection of elements and material required for the assembly.
- 5.- Assembly of the installation in accordance to the diagram.
- 6.- Understanding and interpretation of industrial diagrams and associated technical documentation.
- 7.- Start up and operation of the constructed system.
- 8.- Operational testing in a pipe network (PVFA/AA accessory).

REQUIRED SERVICES

- Water supply and drainage.

DIMENSIONS AND WEIGHTS

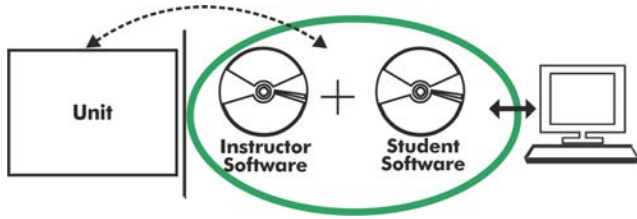
PVFA:

- Dimensions: 1500 x 2000 x 2000 mm approx.
(59.05 x 78.74 x 78.74 inches approx.)
- Weight: 280 Kg approx.
(617 pounds approx.)

RECOMMENDED ACCESSORIES (Not included)

- PVFA/AA. Assembly and Alignment of Pumps and Driving Motor.

PVFA/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.

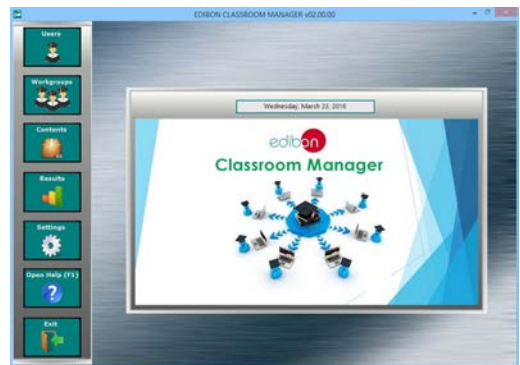
Instructor Software

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

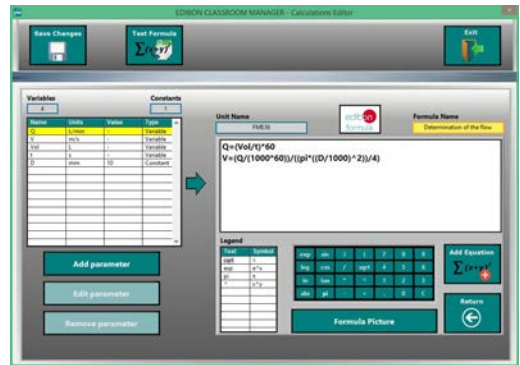
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

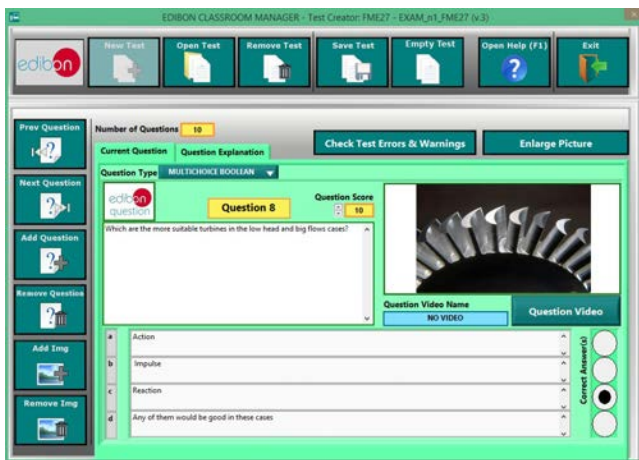
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

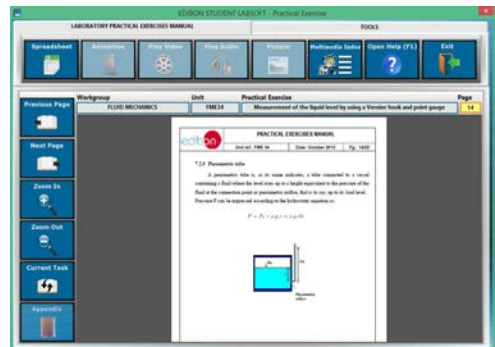
- Student Log-In & Self-Registration.
- Existing Tasks checking & Monitoring.
- Default contents & scheduled tasks available to be used from the first session.
- Practical Exercises accomplishment by following the Manual provided by EDIBON.
- Evaluation Methods to prove your knowledge and progression.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

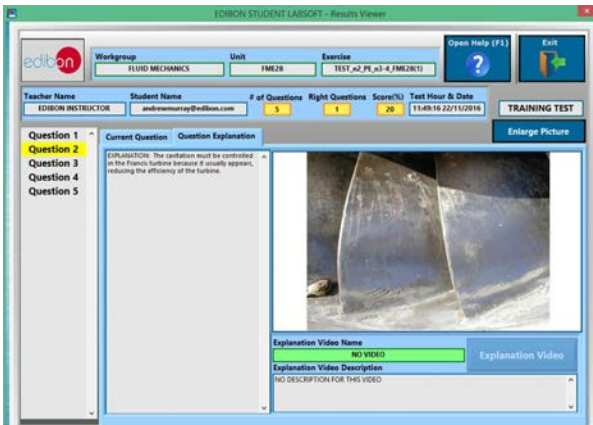
www.edibon.com/en/files/expansion/ICAI/catalog



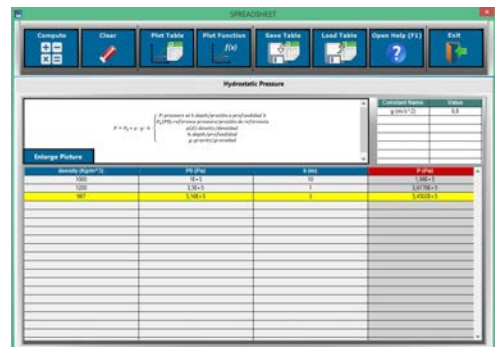
ESL-SOF. EDIBON Student LabSoft (Student Software) Application Main Screen



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:

