



## INTRODUCTION

The cutaway units are actual models of elements of study that have been cut to observe their interior. It allows the student to recognize all the components and understand the construction and operation of the parts that make up the element.

Butterfly valves are used in air ducts, pipes for liquid and in mechanical applications, as in some types of thermal engines. The non-linearity between the rotated angle and the passage area means that they are not recommended for regulating pressure or flow, they are more suitable in situations of cutting or total opening of the flow.

## GENERAL DESCRIPTION

The Unit to Study a Non-Return Butterfly Valve Cutaway Model, "NBVCM", allows the students to visualize the inner parts of a butterfly valve, to evaluate the relation with each other accurately and to understand their function.

It is a valve to interrupt or regulate the flow of a fluid in a duct by increasing or reducing the passage through a plate called "butterfly", which swivels. By decreasing the passage area, the pressure drop in the valve increases, reducing the flow. The machining to which the butterfly valve has been subjected allows observing and understanding its operation and construction.

The cutaway model of a butterfly valve is composed of real industrial elements designed in such a way that its inner parts can be observed by the user, maintaining its mechanical and functional capacity.

The unit is attached to a base plate with handles for easy transport.



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

## SPECIFICATIONS

Bench-top unit with adjustable legs.

Anodized aluminum frame and panels made of painted steel.

Fixed equipment on a base plate with handles for easy transport.

Butterfly valve:

Material: cast iron/steel.

Nominal pressure: 16 bar.

Nominal diameter: DN50.

Permissible flow: compressed air, weak acid, alkaline substances.

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.- Identification of butterfly valves in industrial diagrams.
- 2.- Identification of the industrial components in an industrial plane (joint, exploded and exploded plane).
- 3.- Identification of the main components of a butterfly valve.
- 4.- Operation of a butterfly valve.
- 5.- Study and understanding of the maintenance of a butterfly valve.

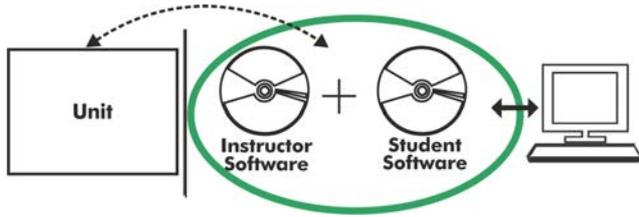
## DIMENSIONS AND WEIGHTS

NBVCM:

-Dimensions: 350 x 300 x 250 mm approx.  
(13.78 x 11.81 x 9.84 inches approx.)

-Weight: 5 Kg approx.  
(11 pounds approx.)

**NBVCM/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.

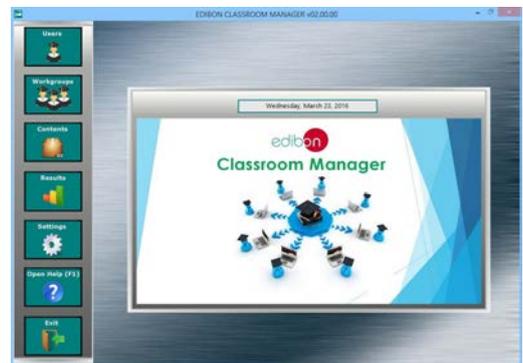
Instructor Software

**- 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:

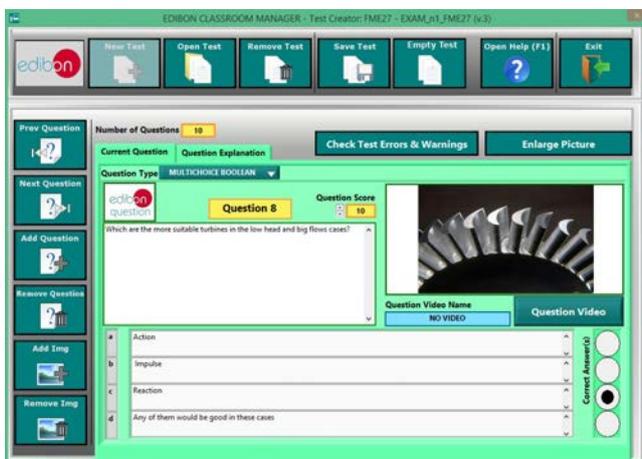
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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



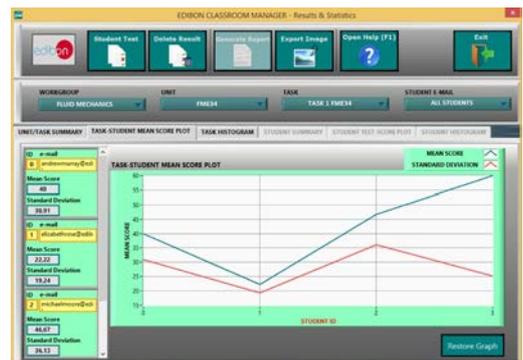
ECM-SOF. EDIBON Classroom Manager (Instructor Software) Application Main Screen



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

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:

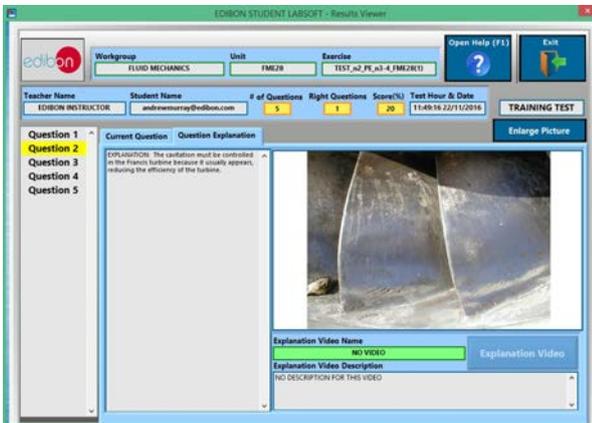
[www.edibon.com/en/files/expansion/ICAI/catalog](http://www.edibon.com/en/files/expansion/ICAI/catalog)



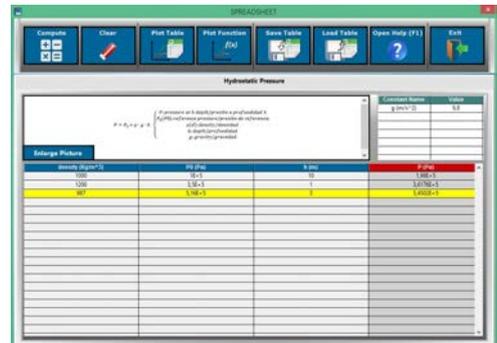
ESL-SOF. EDIBON Student LabSoft (Student Software)  
Application Main Screen



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:

