



INTRODUCTION

The friction is a phenomenon which is continuously present in nature. Friction is a physical phenomenon by which two mobile surfaces in contact tend to stop. This leads to a surfaces wear and, therefore, to an energy loss. This is the reason why this phenomenon must be taken into account when studying a system.

Forces between surfaces, their state, the kind of material and the unit where the friction takes place (dry or wet) will determine the coefficient of friction, by which the friction force is calculated.

GENERAL DESCRIPTION

The Friction Study Unit, "MEF", allows the unit to illustrate the friction force by simple demonstrations.

It is designed for the study of the relations between friction forces and normal forces, between hard or soft surfaces, between lubricated or dry surfaces and between rolling surfaces for several types of materials.

The weight makes the roller set turn while another weight exerts some pressure on the brake. The relation between both of them determines the coefficient of friction for different materials and different operational conditions.



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

SPECIFICATIONS

Bench-top unit with adjustable legs.

Anodized aluminum frame and panels made of painted steel.

The "MEF" unit mainly consists of:

Friction rollers.

Brake mechanism.

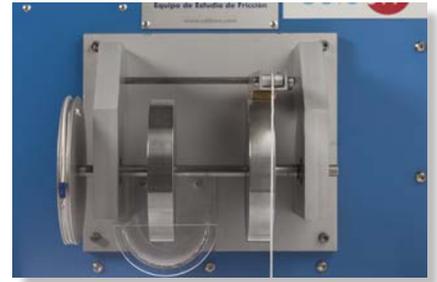
Lubricant reservoir.

Movement pulley.

Friction cushions set: friction pads having stainless steel, brass, ferodo, nylon and rubber surfaces are provided as standard.

In order to carry out some of the practices with "MEF" unit, two "B type" set of weights is required. (See "Required Accessories" section)

Manuals: This unit is supplied with the following manuals: Required services, Assembly and Installation, Starting-up, Security, Maintenance and Practices manual.



MEF detail

EXERCISES AND PRACTICAL POSSIBILITIES

- 1.- Investigation of the relation between the friction forces and normal forces between surfaces in contact.
- 2.- Comparison of the values between dry surfaces in contact, using several materials, by the sliding coefficient.
- 3.- Comparison of the friction values for dry and lubricated surfaces.
- 4.- Comparison of the friction force for sliding surfaces with rolling surfaces.
- 5.- Comparison of the friction force of soft and hard rolling surfaces.

REQUIRED ACCESSORIES (Not included)

- 2 "B type" set of weights. Each "B type" set included:

6 weights of 200 g. (0.44 pounds)

6 weights of 100 g. (0.22 pounds)

2 weights of 50 g. (0.11 pounds)

2 weights of 20 g. (0.044 pounds)

2 weights of 10 g. (0.022 pounds)

1 support hook of 100 g. (0.22 pounds)

DIMENSIONS AND WEIGHTS

MEF:

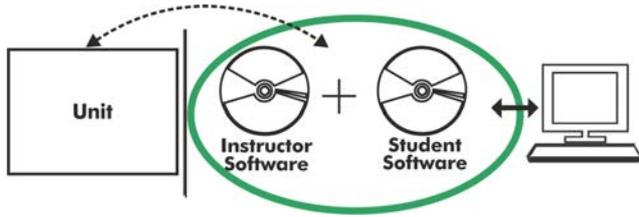
-Dimensions: 400 x 400 x 600 mm approx.

(15.75 x 15.75 x 23.62 inches approx.)

-Weight: 20 Kg approx.

(44 pounds approx.)

MEF/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.

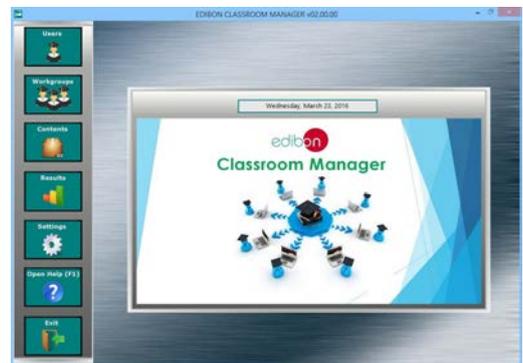
Instructor Software

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

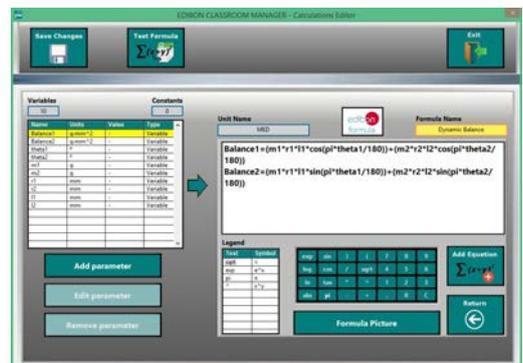
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

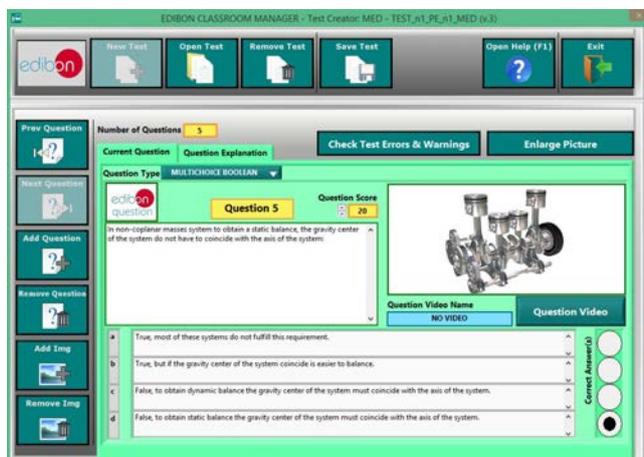
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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



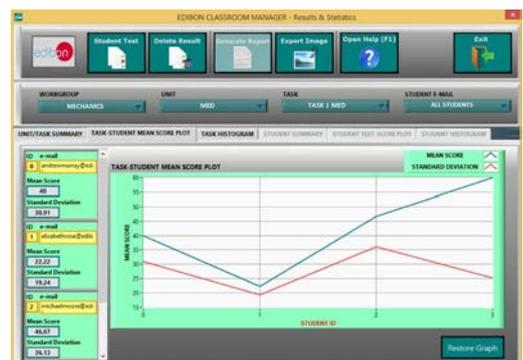
ECM-SOF. EDIBON Classroom Manager (Instructor Software) Application Main Screen



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:

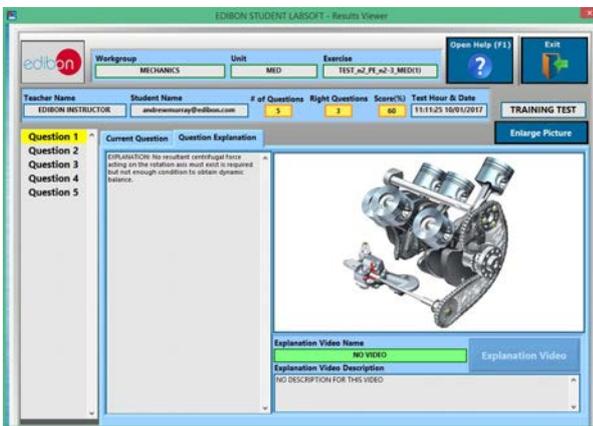
www.edibon.com/en/files/expansion/ICAI/catalog



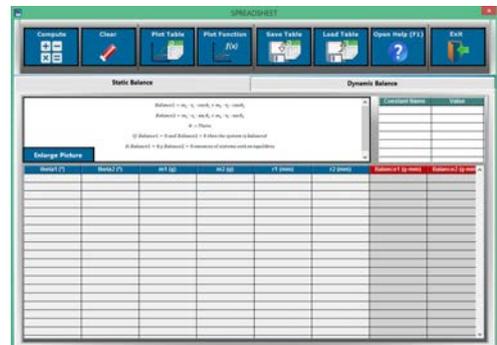
ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



EPE. EDIBON Practical Exercise Program Package Main Screen



ERS. EDIBON Results & Statistics Program Package - Question Explanation



ECAL. EDIBON Calculations Program Package Main Screen

BDAS. Basic Data Acquisition System and Sensors:

For being used with mechanical modules.

BDAS is designed to monitor the measurements of each mechanical module from a computer.

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



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REPRESENTATIVE:

