



INTRODUCTION

A body rotating about an axis develops inertia to the rotation, that is to say, a resistance to change the rotation speed and the direction of its rotation axis. The inertia of an object to the rotation is determined by its Moment of Inertia, being "the resistance that a rotating body opposes to the change of its rotation speed".

The moment of inertia reflects the mass distribution of a rotating body or system of particles relative to a rotation axis. The moment of inertia depends only on the geometry of the body and the position of the rotation axis, but it does not depend on the forces that take part in the motion. The greater the distance between the mass and the center of rotation, the greater the moment of inertia.

The Unit to Study Rotational Inertia, "SRI", has been designed to perform tests for the analysis of the moments of inertia of rotating bodies.

GENERAL DESCRIPTION

The Unit to Study Rotational Inertia, "SRI", has been designed to carry out tests to analyze the moments of inertia of a solid and a hollow cylinder, both with the same mass and diameter. Also, systems with different masses and distribution of masses can be studied with a rotating bar to which different masses can be attached in various positions (at different distances from the center).

The unit consists of two support rods. One rod supports the rotary axis with the studied body. And a uniformly accelerated rotational motion in the rotary axis is generated from the other rod. The rotary axis is accelerated by a fixed pulley and a cable wound on it, where a mass is hung.

The moment of inertia is determined with the measurements of the time (with a chronometer), the studied mass and the acceleration distance.



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.

The "SRI" unit mainly consists of:

Solid cylinder and hollow cylinder:

Mass: 1 kg.

Outer diameter: 120 mm.

Rotating bar with adjustable position masses:

Length: 550 mm.

Diameter: 10 mm.

Masses:

Two masses of 100 g.

Two masses of 200 g.

Two masses of 500 g.

Fixed pulley.

Cable and hanger.

Mass for the generation of the rotational motion: 100 g.

Chronometer.

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.- Generation of a uniform acceleration rotation movement.
- 2.- Study and analysis of the moment of inertia of bodies in rotation movement.
- 3.- Study and analysis of the moment of inertia as a function of the radius.
- 4.- Comparison of the moment of inertia of a hollow and solid cylinder in rotation.
- 5.- Study of the influence of the rotating mass in the moment of inertia.

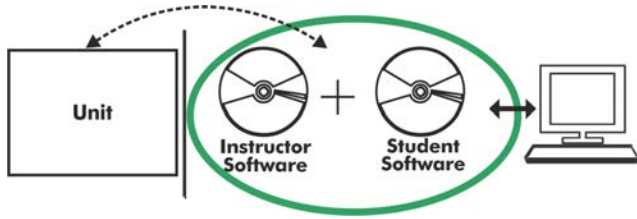
DIMENSIONS AND WEIGHTS

SRI:

- Dimensions: 300 x 300 x 600 mm approx. (11.81 x 11.81 x 23.62 inches approx.).

- Weight: 15 kg approx. (33 pounds approx.).

SRI/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.

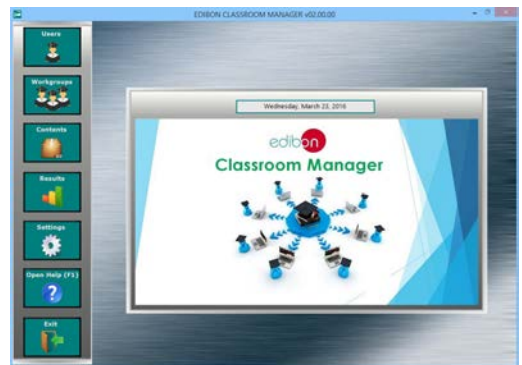
Instructor Software

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

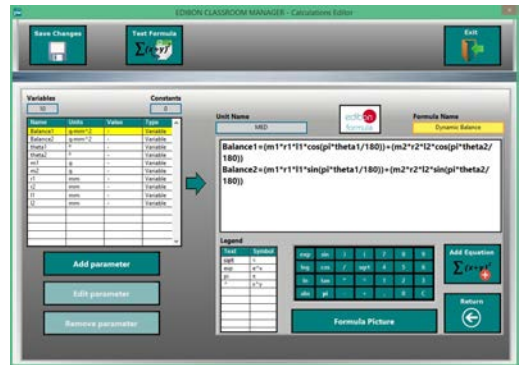
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

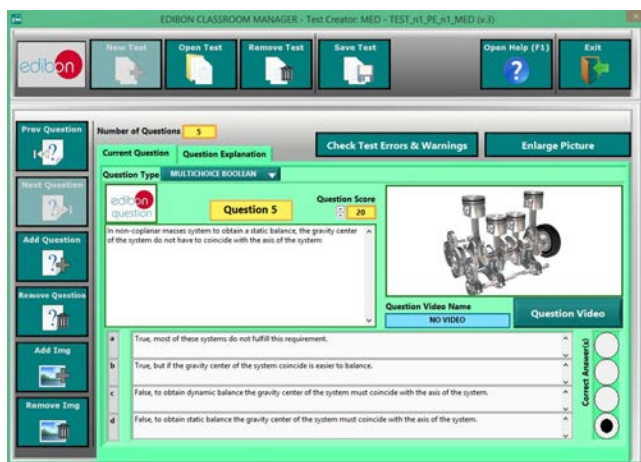
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

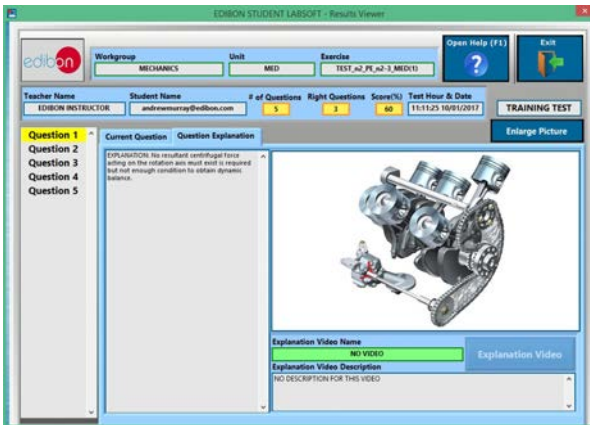
www.edibon.com/en/files/expansion/ICAI/catalog



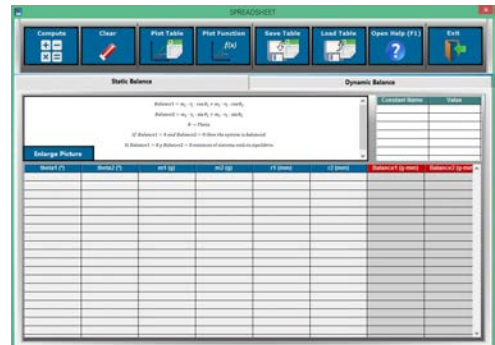
ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



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.



C/ Julio Cervera, 10-12-14. Móstoles Tecnológico.
28935 MÓSTOLES. (Madrid). ESPAÑA - SPAIN.
Tel.: 34-91-6199363 Fax: 34-91-6198647

E-mail: edibon@edibon.com Web: www.edibon.com

Edition: ED01/18
Date: October/2018

REPRESENTATIVE:

