

INTRODUCTION

The Deflection of Curved Bars Unit “MDB” is designed to enable the student to determine experimentally the horizontal and vertical displacements at the free end of various curved bars when subject to single concentrated load.

GENERAL DESCRIPTION

The Deflection of Curved Bars Unit “MDB” consists of a structure of aluminum and steel that allows the incorporation of different curved bars to be studied. It allows tests with curved bars of different shape.

The use of two dial gauges placed perpendicularly to each other makes it possible to determine the displacements produced in both directions, up to a maximum range of 10 mm.

The load is applied when hanging weights in the application point. A set of weights is supplied with the unit. A steel hook is also included for these weights, and it must be hung in the application point of the force.



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 in painted steel.

The MDB unit basically consists of:

Structure of aluminum and steel on which the dial gauges are mounted and clamps for the test bars.

Two dial gauges with range from 0-10 mm, and with 0.01 mm accuracy, to measure the deformation of the test bar subjected to a force.

Four test curved bars, made of steel, with different lengths and curvatures.

Steel hook to hand the weights and it is hanging in the application point of the force.

In order to carry out some of the practices with MDB unit, a "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, Safety, Maintenance & Practices Manuals.



MDB detail

EXERCISES AND PRACTICAL POSSIBILITIES

- 1.- Study of deflection of curved bars.
- 2.- Determination of the horizontal and vertical displacements at the free end of various curved bars when subject to single concentrated loads.
- 3.- Study of the different types of bars geometry and for different positions.
- 4.- Measurement of the horizontal and vertical displacements produced at the free end of the curved bar.
- 5.- Effect of the load value in the bar response.
- 6.- Effect of the bar morphological characteristics in its response to the load.

REQUIRED ACCESSORIES (Not included)

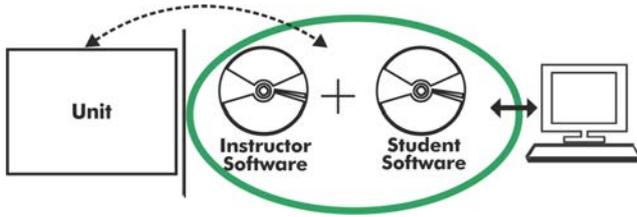
- 1 "B Type" Set of weights. Each "B Type" Set includes:
 - 6 weights of 200 gr. (0.44 pounds).
 - 6 weights of 100 gr. (0.22 pounds).
 - 2 weights of 50 gr. (0.11 pounds).
 - 2 weights of 20 gr. (0.044 pounds).
 - 2 weights of 10 gr. (0.022 pounds).
 - 1 support hook of 100 gr. (0.22 pounds).

DIMENSIONS AND WEIGHT

- Dimensions: 370 x 220 x 400 mm. approx.
(14.57 x 8.66 x 15.75 inches approx.)
- Weight: 8 Kg. approx.
(17.6 pounds approx.)

Optional

MDB/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 Workgroups, Tasks and Training sessions.

Creation and Integration of Practical Exercises and Multimedia Resources.

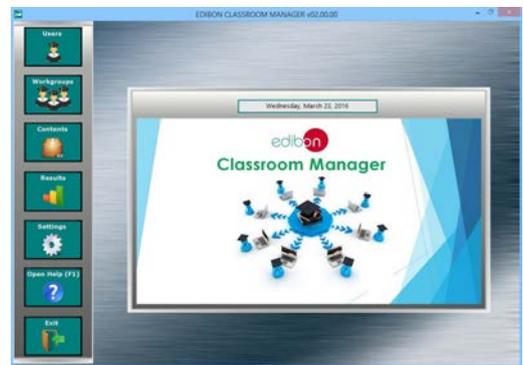
Custom Design of Evaluation Methods.

Creation and assignment of Formulas & Equations.

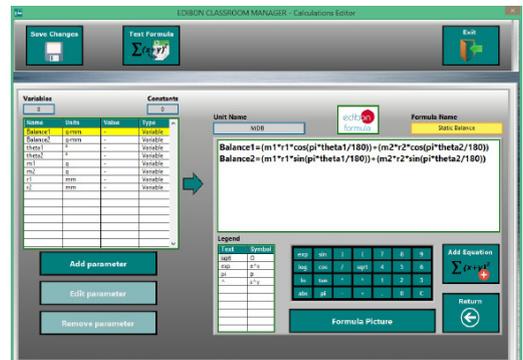
Equation System Solver Engine.

Updatable Contents.

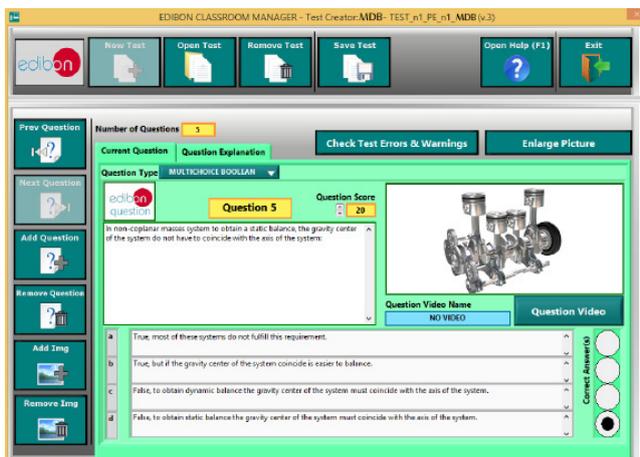
Report generation, User Progression Monitoring and Statistics.



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

-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.

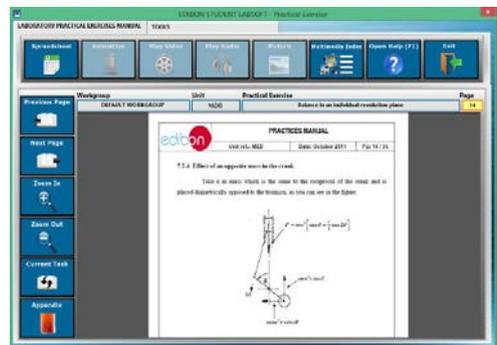
Innovative features:

- 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.**

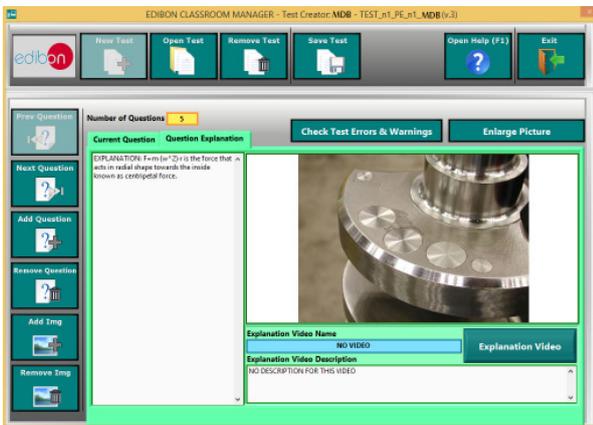
For more information see ICAI catalogue. Click on the following link:
www.edibon.com/products/catalogues/en/ICAI.pdf



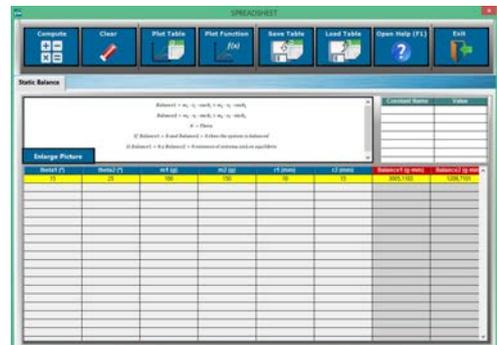
ESL-SOF. EDIBON Student LabSoft (Student Software) Application Main Screen



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 (PC).

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



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Edition: ED01/16
Date: November/2016

REPRESENTATIVE:

