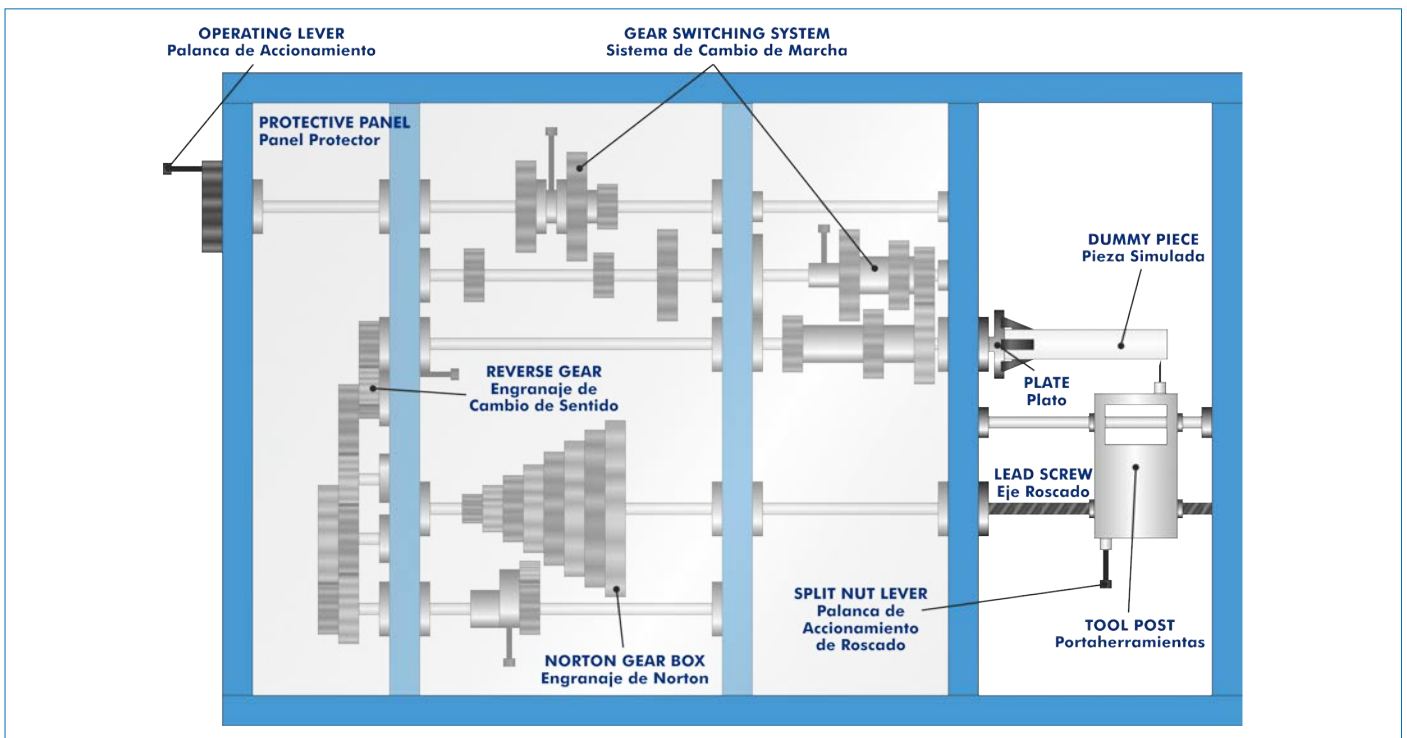


PROCESS DIAGRAM AND UNIT ELEMENTS ALLOCATION



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

In 1780, Jacques de Vaucanson builds the first lathe with sliding tool post. Since then, this device has been and it is still used in the industry for the machining of parts in different types of materials. This system allows the rotational movement of a part by means of a series of gears arranged in such a way that the rotation speed of an engine or a handle is conveyed.

The Unit to Study Lathe Gears, "MSLG", allows the students to study, understand and identify the different types of gears that these widely-used devices have.

GENERAL DESCRIPTION

The Unit to Study Lathe Gears, "MSLG", represents the gears of a typical lathe in a machining workshop, including: a main adjustable transmission gear, one Norton gearbox for the machining of specific threads and pitches, a pinion switching gear and a reverse rotation gear.

The part to be machined is represented by an exchangeable cylinder and the cutting tool by a marker. This system allows a dummy test of the machining of the part, the thread pitch and the grinding produced, with the tool post carriage always moving longitudinally.

The unit works using a movable main shaft with three driving pinions of different size, which is driven by means of a graduated handle, and allowing the spindle to change speed. The movement produced in the main shaft is transmitted to the spindle by a gear mesh enabling the reverse rotation. At the same time, the spindle is connected to a Norton gearbox, which conveys the movement to the guide screw, enabling the production of threads of different pitch and the automatic forward movement of the tool post carriage. In parallel, the unit also has an operating lever for the tool post carriage.

Thanks to the lathe gears protective panel, the unit is totally visual and completely safe.

SPECIFICATIONS

Anodized aluminum frame and panels made of painted steel.

The unit includes wheels to facilitate its mobility.

Main metallic elements made of stainless steel.

Diagram in the front panel with distribution of the elements similar to the real one.

Manual handling components:

- Graduated operating handle.

- Pitch speed lever and signaling of pitch type for machining.

Main shaft components:

- Main shaft: Three different size pinions.

- Integral shaft: Three ring gears of different size.

Spindle shaft components:

- Spindle shaft: Three transmission ring gears. Nine drive gears.

- Transmission pinion.

- Reverse gear.

Tool post shaft components:

- Norton gearbox: Seven different pitches.

- Tool post threaded shaft.

- Tool post smooth shaft.

Dummy part and tool components:

- Exchangeable cylinder.

- Marker.

Methacrylate protective panel.

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.- Study and understanding of gear operation.
- 2.- Analysis, study and understanding of the types of lathe gears.
- 3.- Study and understanding of a Norton gearbox.
- 4.- Study and understanding of a reverse gear system.
- 5.- Study and understanding of a gear switching system.
- 6.- Main shaft transmission.
- 7.- Tool post threaded shaft operation.

DIMENSIONS AND WEIGHTS

MSLG:

- Dimensions: 800 x 1700 x 600 mm approx. (31.50 x 66.92 x 23.62 inches approx.)
- Weight: 50 Kg approx. (110 pounds approx.)

MSLG/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.

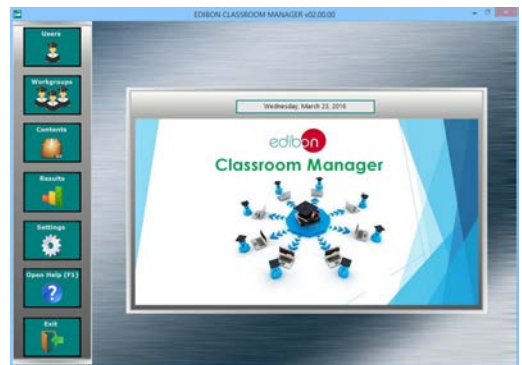
Instructor Software

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

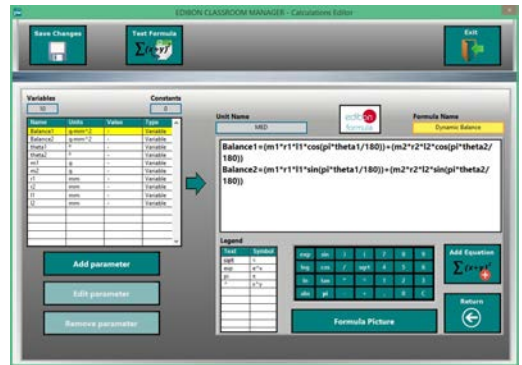
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

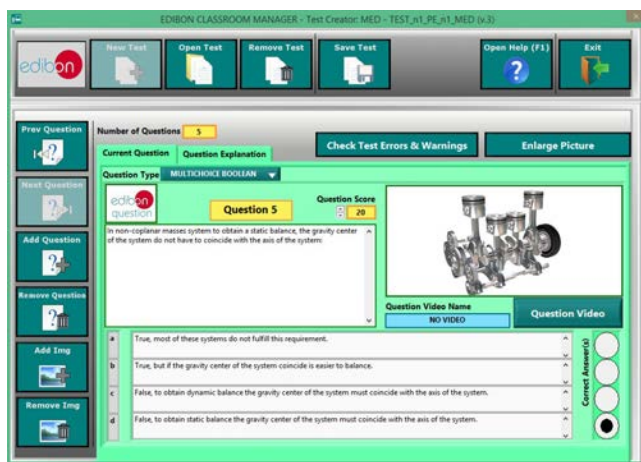
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

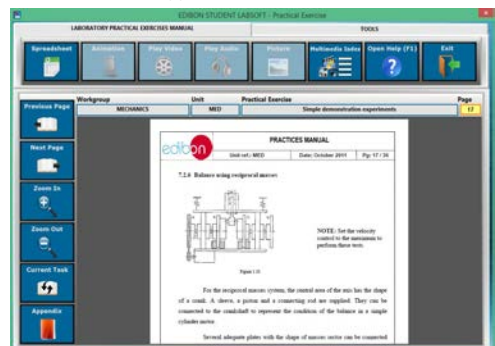
- Student Log-In & Self-Registration.
- Existing Tasks checking & Monitoring.
- Default contents & scheduled tasks available to be used from the first session.
- Practical Exercises accomplishment by following the Manual provided by EDIBON.
- Evaluation Methods to prove your knowledge and progression.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

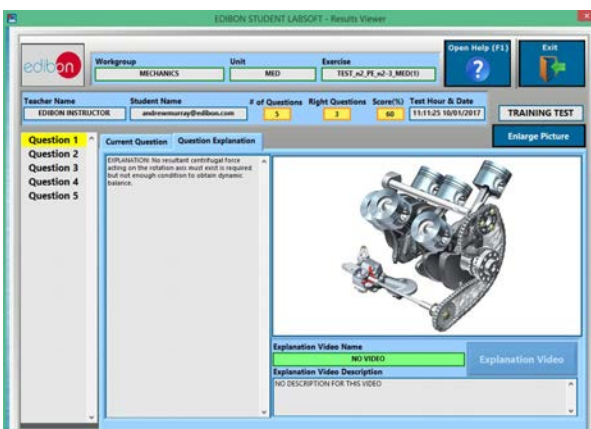
www.edibon.com/en/files/expansion/ICAI/catalog



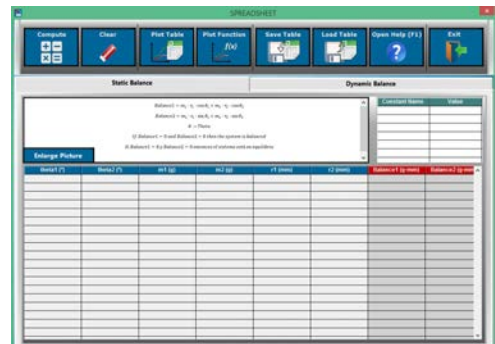
ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



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.



C/ Del Agua, 14. Polígono Industrial San José de Valderas.
28918 LEGANÉS. (Madrid). ESPAÑA - SPAIN.
Tel.: 34-91-6199363 Fax: 34-91-6198647
E-mail: edibon@edibon.com Web: www.edibon.com

Edition: ED01/17
Date: February/2017

REPRESENTATIVE:

