



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.

Most of the refrigeration units used today employ compressors. The compressors perform the function of increasing the pressure of the refrigerant liquid when it has been totally or partially transformed into steam due to the absorption of heat in the evaporator, to allow its condensation again and to restart the refrigeration cycle.

There are different types of compressors, they can be classified according to several characteristics, one of them is to order them as open, semi-hermetic or hermetic (closed). The open two-cylinder compressor is widely used in industrial applications and in units that work with ammonia as a cooling fluid. It is very practical for routine maintenance of the motor, since this is not part of the refrigerant circuit itself, but rather by means of a coupling drives the compressor.

According to the requirements, some specifications will be necessary. Some factors to highlight for the proper choice of the compressor are: dimensioning and weight, vibrations and inertia of moving parts, useful life of the unit, regularity in the flow supply, existence or not of valves, oil-coolant mixing conditions, flow characteristics -pressure and the compression ratio required. It is also important to consider the cooling fluid used in the selection of the compressor.

GENERAL DESCRIPTION

The Unit to Study an Open Refrigerant Compressor Cutaway Model, "HCCM", allows the students to visualize the inner parts of an open compressor, to evaluate the relation with each other accurately and to understand their function.

This unit allows to visualize the pistons and cylinders sealed inside a crankcase and a crankshaft extending through the body out to be powered by some external force. It has a seal around the crankshaft that prevents the loss of coolant and compressor oil.

The cutaway model of a compressor 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.

Open refrigerant compressor:

Housing material: cast iron/steel.

Nominal pressure: 16 bar.

Nominal diameter: DN80.

Flow rate: 50 l/min.

Power, range: 0.17 – 1.5 kW.

Revolutions per minute, range: 120 – 975.

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 open refrigerant compressors 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 an open refrigerant compressor.
- 4.- Operation of an open refrigerant compressor.
- 5.- Study and understanding of the maintenance of an open refrigerant compressor.

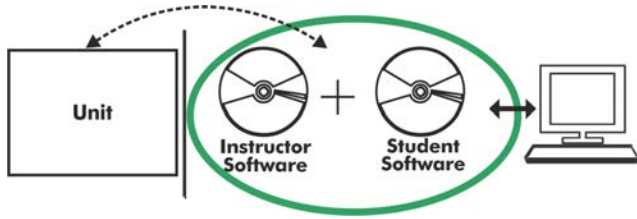
DIMENSIONS AND WEIGHTS

OCCM:

-Dimensions: 350 x 300 x 400 mm approx.
(13.78 x 11.81 x 15.74 inches approx.)

-Weight: 10 Kg approx.
(22 pounds approx.)

OCCM/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.

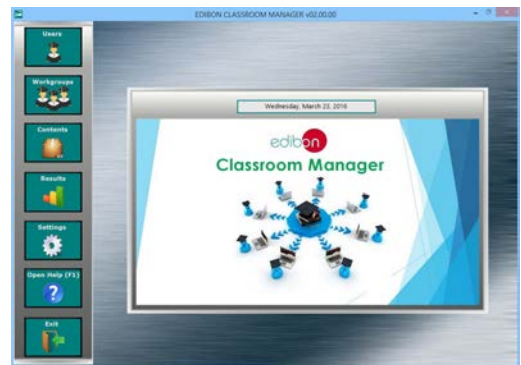
Instructor Software

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

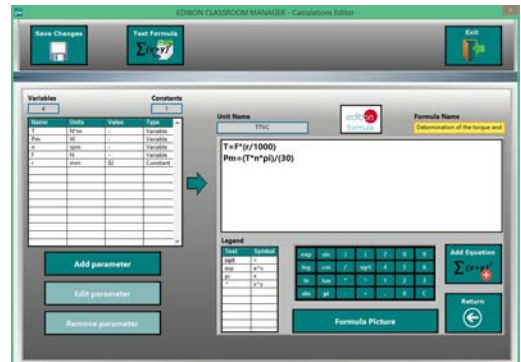
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

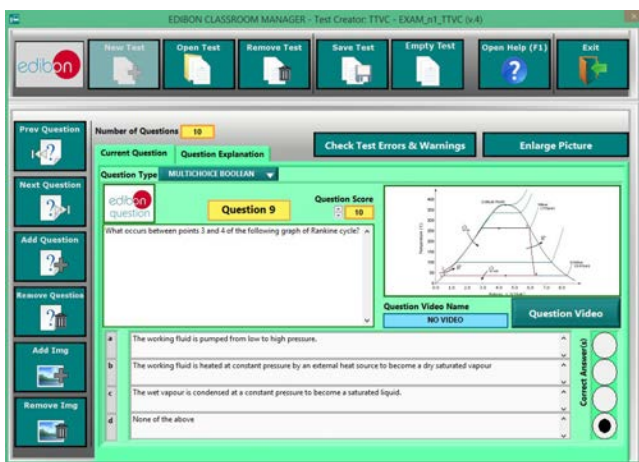
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

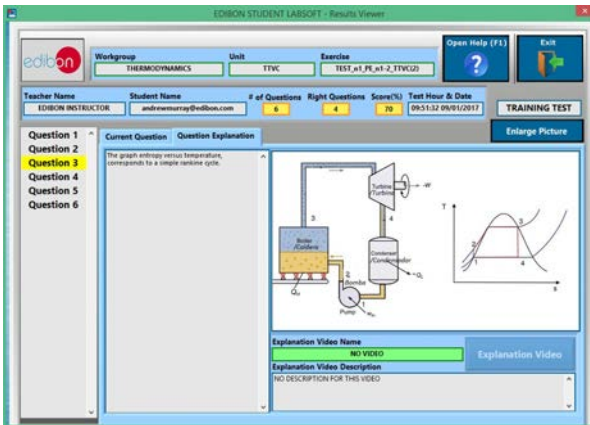
www.edibon.com/en/files/expansion/ICAI/catalog



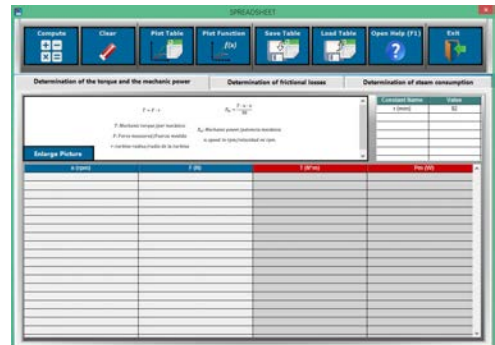
ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



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.



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REPRESENTATIVE:

