

Short form
Catalogue

100%, own
Design
and own
Manufacturing

ESN. SCADA-NET TEACHING SYSTEM



- Established in 1978. **Madrid. SPAIN.**
- We supply our Technical Teaching Units all over the world.
- All our customers are satisfied.

Technical Teaching Equipment

Activities

- Design, manufacturing and commercialization of Technical Teaching Equipment.
- Installation, Starting-up, Training and Technology Transfer.
- Design of complete laboratories.



Research & Development

We design and manufacture:

- All Units (Mechanics).
- All Electronics (Interfaces).
- All Software Packages (Lab View structure).
- All Manuals.



Products

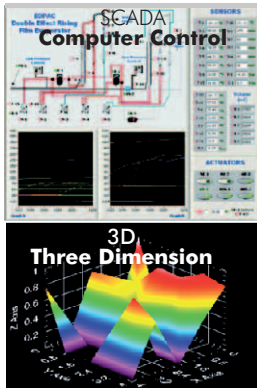
- More than 2000 Technical Teaching Units and more than 1800 different Software Packages in most technical areas, as:
 - Physics. -Automation & Systems. -Chemical Engineering.
 - Electronics. -Mechanics & Materials. -Food and Water Technologies.
 - Communications. -Fluid Mechanics & Aerodynamics. -Environment.
 - Electricity. -Thermodynamics & Thermotechnics.
 - Energy. -Process Control.



Technology

- We use several NEW Teaching Techniques:
 - * -3D. EDIBON Three Dimensions System.
 - * -CAI. Computer Aided Instruction Software System.
 - * -CAL. Computer Aided Learning Software (Results Calculation and Analysis).
 - * -EDAS/VIS. EDIBON Data Acquisition System / Virtual Instrumentation System.
 - * -MUAD. Electric Power Data Acquisition System.
 - * -RTC. EDIBON Real Time Control System (for advanced electronics).
 - * -HYBRID. EDIBON Hybrid System (Energy).
 - * -PHOTOELASTICITY. For Strength of Materials.
 - * -SCADA. EDIBON Computer Control System: Control + Data Acquisition + Data Management.
 - * -PLC. Industrial Control using PLC.
 - * -MINI ESN. EDIBON Mini Scada-Net System.
 - * -ESN. EDIBON Scada-Net System.
 - * -ETDL. EDIBON Technical Distance Learning System.
 - * -FSS. Faults Simulation System.

* = These Teaching Techniques are EDIBON PATENT.



Customers

- Higher Education: Universities, Colleges of Technology, Engineering Schools, etc.
- Technical Level: Technical and Vocational Schools, Industrial Colleges, etc.
- Secondary Education: Physics and basic teaching units.
- Industrial Training: Electricity, Oil, Mine Training Centers, etc.
- and...Research Centers.



Quality

- 4 of ISO 9000 : Quality Management for Design, Manufacturing, Commercialization and After-sales service of Teaching Equipment.
- ISO 14000 Certificate. (Environmental management).
- EMAS. ECO-Management and Audit Scheme. (Environmental management).
- "Worlddidac Quality Charter" Certificate. Worlddidac Association (located in Switzerland) confers this certificate to EDIBON.
- European Union Certificate (total safety).



Guarantees

- EDIBON offers with every unit supplied:
 - Sophisticated and complete quality control.
 - Components control during the life-time of the unit.
 - More than 10 full-time designing engineers.
 - 3 years guaranty against any manufacturing defect.
 - Company structure and future.
 - Maintenance (EDIBON provides 8 manuals with each unit supplied).
 - Sustainability for any unit supplied.
 - Full customer satisfaction.



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Note: For complementary units in any area see EDILAB products. (www.edilab.es/BETA/products)

----- **Complete Laboratories and Industrial Systems** (pages 81-87) -----

----- **Turn-Key Projects** (page 88) -----

-Technical and Vocational Education.

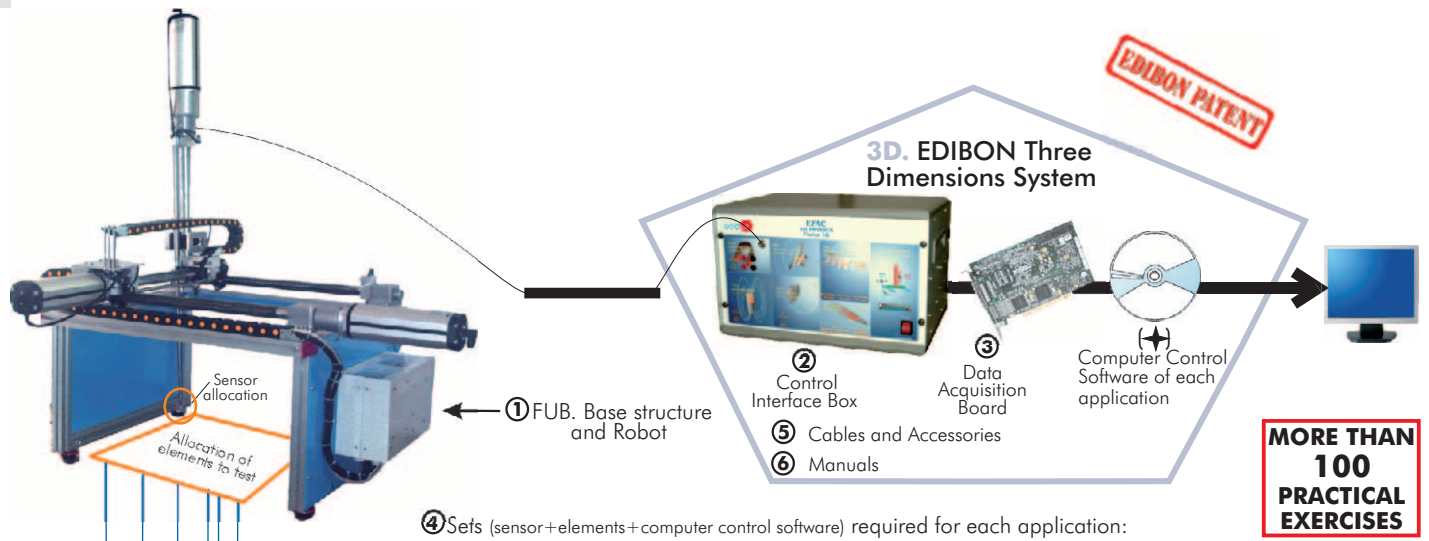
-Higher Technical Education.

----- **Classroom and Laboratory Lay Out** (page 89) -----

----- **Others facilities that EDIBON offers** (page 90) -----

----- **Where we are?** (page 91) -----

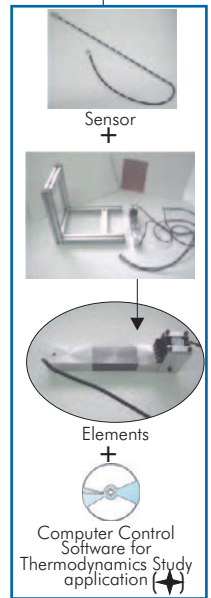
EFAC. Computer Controlled Three Dimensions (3D) Physics System:

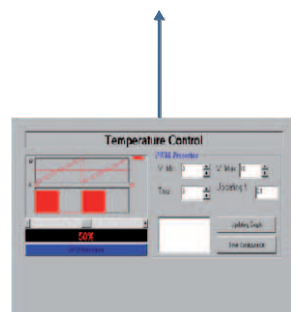
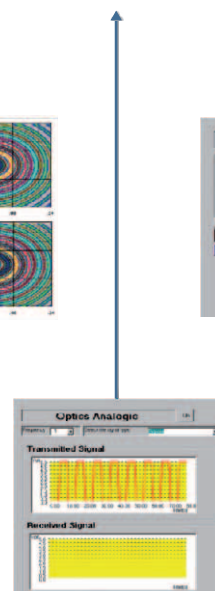
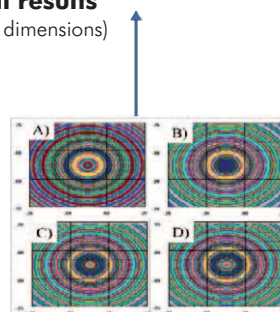
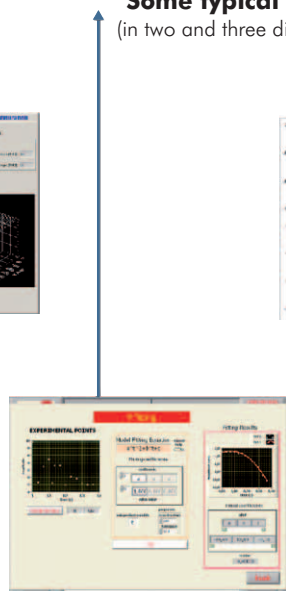
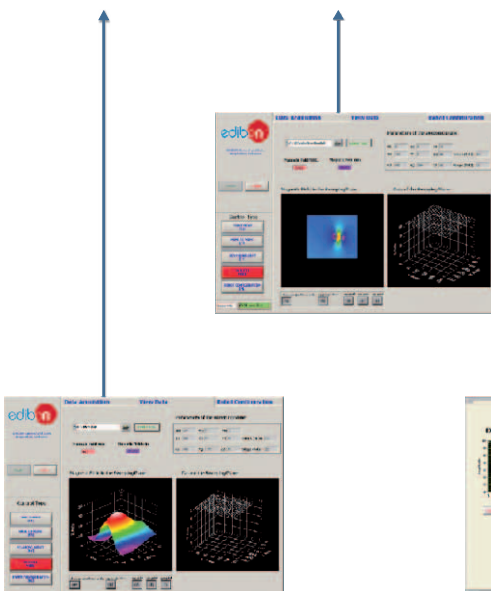

④.1 FCE. Set for **Electrical Fields** application

④.2 FCM. Set for **Magnetic Fields** application

④.3 FM. Set for **Mechanics** Study application

④.4 FAC. Set for **Acoustics** Study application

④.5 FOP. Set for **Optics** Study application

④.6 FTT. Set for **Thermodynamics** Study application

Some typical results
(in two and three dimensions)


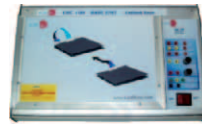
2.1- Basic Electronics

www.edibon.com/products/index.php?area=electronics&subarea=basic&lang=en

LIEBA. Basic Electronics and Electricity Integrated Laboratory: Power Supply



FA-CO. Power Supply



EBC-100. Base Unit, with built-in power supply

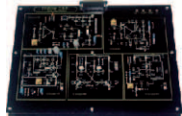
► Basic Electronics concepts



M3. Semiconductors I



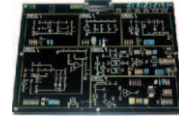
M4. Semiconductors II



M6. Oscillators



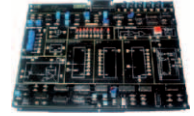
M7. Operational Amplifiers



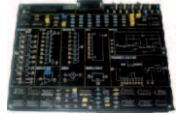
M8. Filters



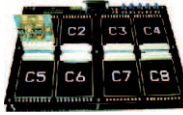
M9. Power Electronics



M60. Analog/Digital Converters



M61. Digital/Analog Converters



M99. Expansion Board (with a wide range of sub-boards available)

► Digital Electronics



M10. Digital Systems & Converters



M11. Digital Electronics Fundamentals



M12. Basic Combinational Circuits



M13. Basic Sequential Circuits



M14. Optoelectronics



M41. Resistance Transducers

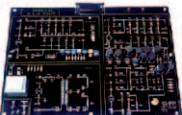
► Basic Electricity concepts



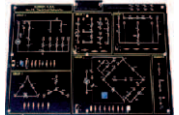
M5. Power Supplies



M1. Direct Current (D.C.) Circuits



M2. Alternating Current (A.C.) Circuits



M16. Electric Networks



M17. Electromagnetism

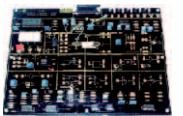


M18. Three-phase Circuits

► Electronics Applications



M43. Applications of Temperature



M49. Applications of Temperature and Pressure



M44. Applications of Light



M45. Linear Position and Force



M46. Environmental Measurements



M15. Development Module



M48. Sounds Measurements

► Control



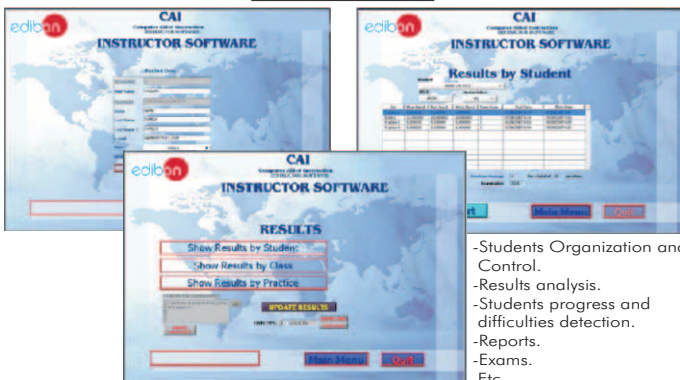
M65. Control and Regulation



M47. Rotational Speed & Position Control

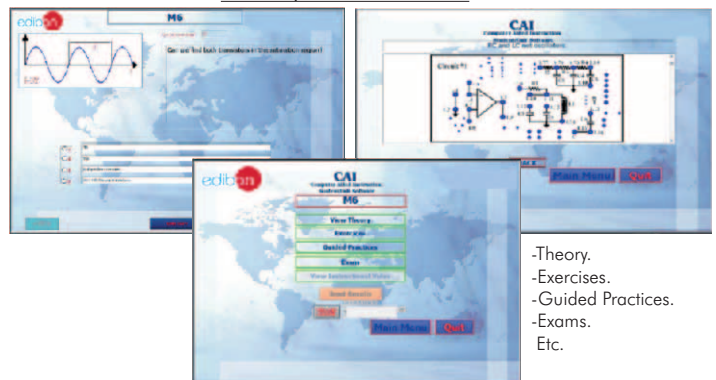
CAI. Computer Aided Instruction Software System

Instructor Software



- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

Student/Module Software



- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student/Module Software Packages:

► Basic Electronics concepts

- M3/SOF. Semiconductors I.
- M4/SOF. Semiconductors II.
- M6/SOF. Oscillators.
- M7/SOF. Operational Amplifiers.
- M8/SOF. Filters.
- M9/SOF. Power Electronics.
- M60/SOF. Analog/Digital Converters.
- M61/SOF. Digital/Analog Converters.
- M99/SOF. Expansion Board.

► Digital Electronics

- M10/SOF. Digital Systems & Converters.

► Basic Electricity concepts

- M11/SOF. Digital Electronics Fundamentals.
- M12/SOF. Basic Combinational Circuits.
- M13/SOF. Basic Sequential Circuits.
- M14/SOF. Optoelectronics.
- M41/SOF. Resistance Transducers.
- M5/SOF. Power Supplies.
- M1/SOF. Direct Current (D.C.) Circuits.
- M2/SOF. Alternating Current (A.C.) Circuits.
- M16/SOF. Electric Networks.
- M17/SOF. Electromagnetism.
- M18/SOF. Three-phase Circuits.

► Electronics Applications

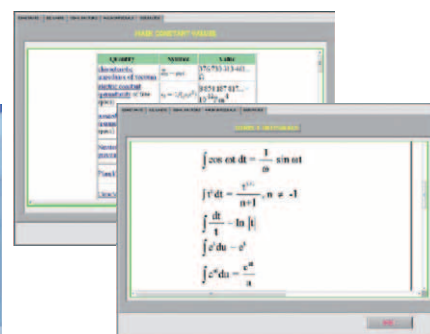
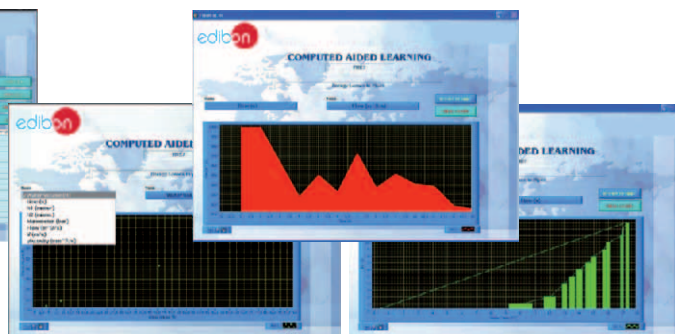
- M43/SOF. Applications of Temperature.
- M49/SOF. Applications of Temperature and Pressure.
- M44/SOF. Applications of Light.
- M45/SOF. Linear Position and Force.
- M46/SOF. Environmental Measurements.
- M15/SOF. Development Module.
- M48/SOF. Sound Measurements.

► Control

- M65/SOF. Control and Regulation.
- M47/SOF. Rotational Speed & Position Control.

LIEBA. Basic Electronics and Electricity Integrated Laboratory:

LIEBA/CAL. Computer Aided Learning Software (Results Calculation and Analysis)



Available Software Packages:

► Basic Electronics concepts

- M3/CAL. Semiconductors I.
- M4/CAL. Semiconductors II.
- M6/CAL. Oscillators.
- M7/CAL. Operational Amplifiers.
- M8/CAL. Filters.
- M9/CAL. Power Electronics.
- M60/CAL. Analog/Digital Converters.
- M61/CAL. Digital/Analog Converters.
- M99/CAL. Expansion Board.
- Digital Electronics
- M10/CAL. Digital Systems & Converters.

- M11/CAL. Digital Electronics Fundamentals.
- M12/CAL. Basic Combinational Circuits.
- M13/CAL. Basic Sequential Circuits.
- M14/CAL. Optoelectronics.
- M41/CAL. Resistance Transducers.

► Basic Electricity concepts

- M5/CAL. Power Supplies.
- M1/CAL. Direct Current (D.C.) Circuits.
- M2/CAL. Alternating Current (A.C.) Circuits.
- M16/CAL. Electric Networks.
- M17/CAL. Electromagnetism.
- M18/CAL. Three-phase Circuits.

► Electronics Applications

- M43/CAL. Applications of Temperature.
- M49/CAL. Applications of Temperature and Pressure.
- M44/CAL. Applications of Light.
- M45/CAL. Linear Position and Force.
- M46/CAL. Environmental Measurements.
- M15/CAL. Development Module.
- M48/CAL. Sound Measurements.

► Control

- M65/CAL. Control and Regulation.
- M47/CAL. Rotational Speed & Position Control.

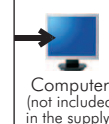
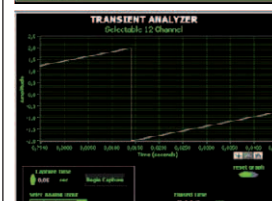
EDAS/VIS. EDIBON Data Acquisition System + Virtual Instrumentation System



+



+



→ Sampling rate up to: **250,000 S/s (samples per second).**

M-KITS. Basic Electronics and Electricity Assembly Kits:

Required elements by any Kit



FA-CO. Power Supply



M15. Development Module

Assembly Kits

Basic Electronics concepts



M3-KIT.
Semiconductors I



M4-KIT.
Semiconductors II



M6-KIT.
Oscillators



M7-KIT.
Operational Amplifiers



M8-KIT.
Filters



M9-KIT.
Power Electronics

Digital Electronics



M10-KIT.
Digital Systems &
Converters



M11-KIT.
Digital Electronics
Fundamentals



M12-KIT.
Basic Combinational
Circuits



M13-KIT.
Basic Sequential Circuits



M14-KIT.
Optoelectronics

Basic Electricity concepts



M5-KIT.
Power Supplies



M1-KIT.
Direct Current
(D.C.) Circuits



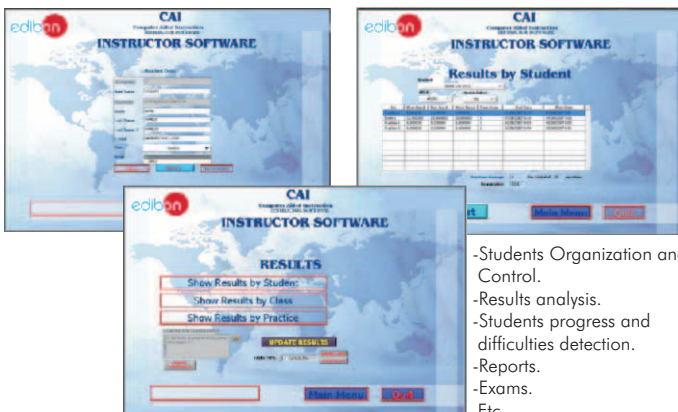
M2-KIT.
Alternating Current
(A.C.) Circuits



M16-KIT.
Electric Networks

CAI. Computer Aided Instruction Software System

Instructor Software



- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

Student Software



- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student Software Packages:

Basic Electronics concepts

- M3/SOF. Semiconductors I.
- M4/SOF. Semiconductors II.
- M6/SOF. Oscillators.
- M7/SOF. Operational Amplifiers.
- M8/SOF. Filters.
- M9/SOF. Power Electronics.

Digital Electronics

- M10/SOF. Digital Systems & Converters.

- M11/SOF. Digital Electronics Fundamentals.
- M12/SOF. Basic Combinational Circuits.
- M13/SOF. Basic Sequential Circuits.
- M14/SOF. Optoelectronics.

Basic Electricity concepts

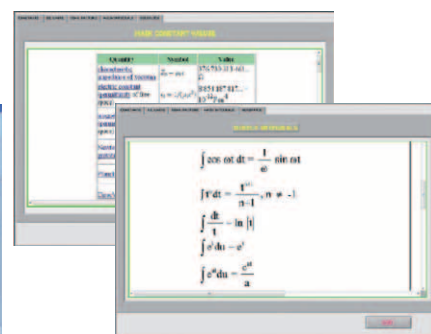
- M5/SOF. Power Supplies.
- M1/SOF. Direct Current (D.C.) Circuits.
- M2/SOF. Alternating Current (A.C.) Circuits.
- M16/SOF. Electric Networks.

M-KITS. **Basic Electronics and Electricity Assembly Kits:****CAL. Computer Aided Learning Software (Results Calculation and Analysis)**

Calculations



Plotting options



Information of constant values, unit conversion factors and integral and derivative tables

Available Software Packages:

► **Basic Electronics concepts**

- M3/CAL. Semiconductors I.
- M4/CAL. Semiconductors II.
- M6/CAL. Oscillators.
- M7/CAL. Operational Amplifiers.
- M8/CAL. Filters.
- M9/CAL. Power Electronics.

► **Digital Electronics**

- M10/CAL. Digital Systems & Converters.

- M11/CAL. Digital Electronics Fundamentals.

- M12/CAL. Basic Combinational Circuits.

- M13/CAL. Basic Sequential Circuits.

- M14/CAL. Optoelectronics.

► **Basic Electricity concepts**

- M5/CAL. Power Supplies.

- M1/CAL. Direct Current (D.C.) Circuits.

- M2/CAL. Alternating Current (A.C.) Circuits.

- M16/CAL. Electric Networks.

EDAS/VIS. EDIBON Data Acquisition System + Virtual Instrumentation System

Data Acquisition Interface Box

+

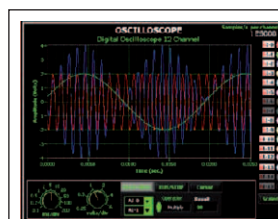


Data Acquisition Board

+



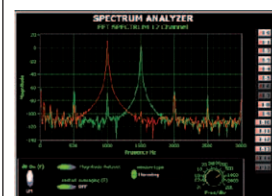
Data Acquisition and Virtual Instrumentation Software



OSCILLOSCOPE



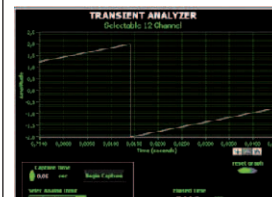
FUNCTION GENERATOR



SPECTRUM ANALYZER



MULTIMETER



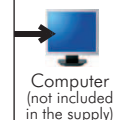
TRANSIENT ANALYZER



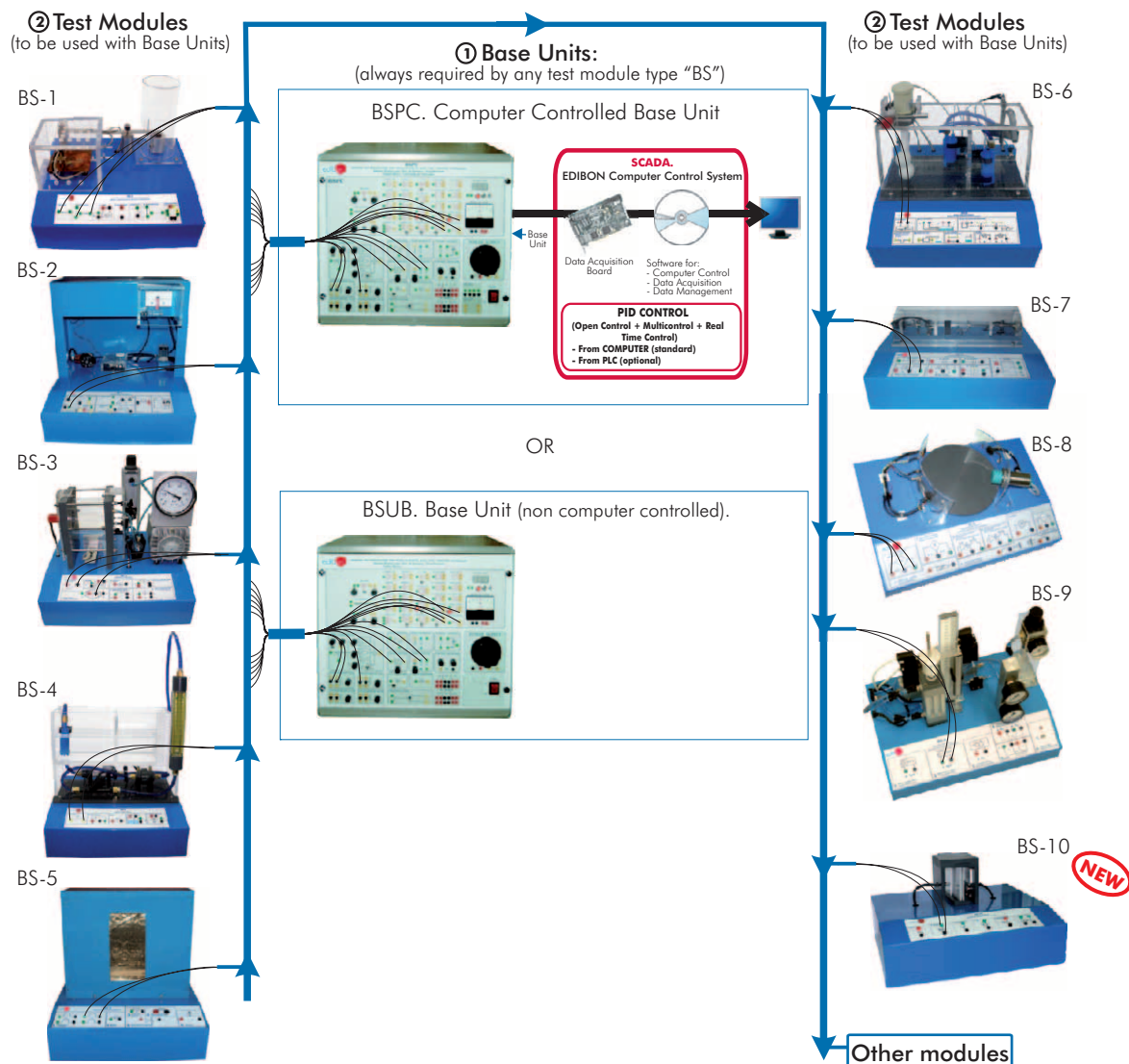
LOGIC ANALYZER



LOGIC GENERATOR

Computer
(not included
in the supply)→ Sampling rate up to: **250,000 S/s (samples per second).**

BS. Modular System for the Study of Sensors:



This system consists of:

① Base Unit, to control the system:

BSPC. Computer Controlled Base Unit, including EDIBON Computer Control System. OR
BSUB. Base Unit (non computer controlled).

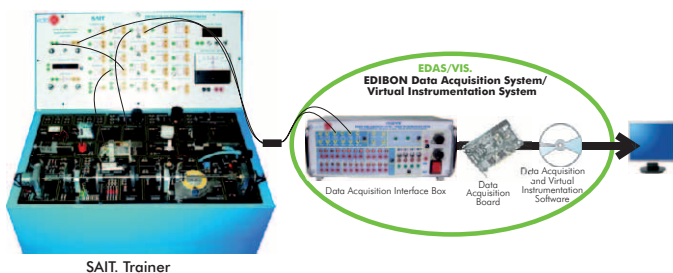
② Test Modules:

BS-1. Vibration and/or Deformation Test Module.
BS-2. Temperature Test Module.
BS-3. Pressure Test Module.

BS-4. Flow Test Module.
BS-5. Ovens Test Module.
BS-6. Liquid Level Test Module.
BS-7. Tachometers Test Module.

BS-8. Proximity Test Module.
BS-9. Pneumatic Test Module.
BS-10. Light Test Module.

SAIT. Transducers and Instrumentation Trainer



Other available Unit:

- SPC. Computer Controlled Weighing System

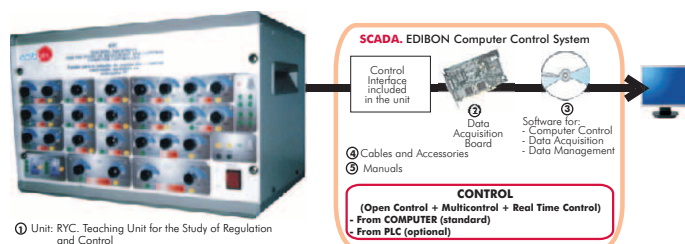
SCSP. Pressure Sensors Calibration System



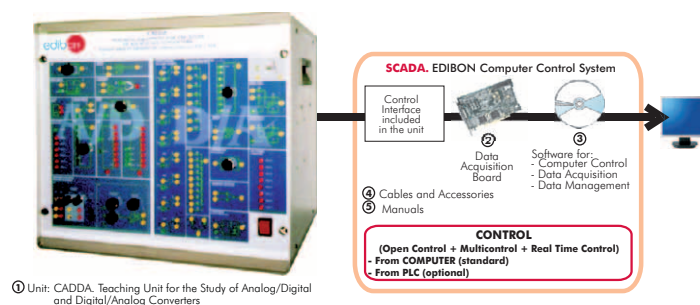
2.4- Control Electronics (Advanced)

www.edibon.com/products/index.php?area=electronics&subarea=control&lang=en

RYC. Computer Controlled Teaching Unit for the Study of Regulation and Control



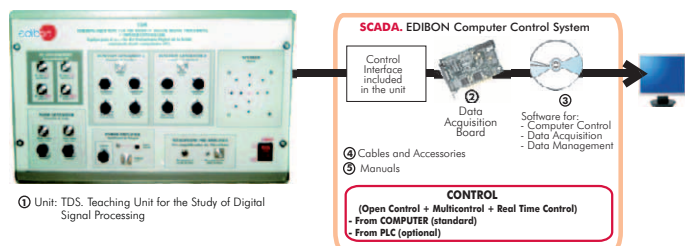
CADD. Computer Controlled Teaching Unit for the Study of Analog/Digital and Digital/Analog Converters



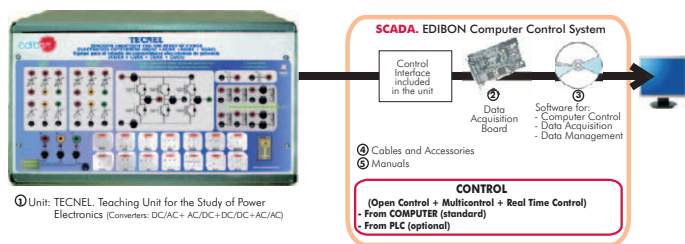
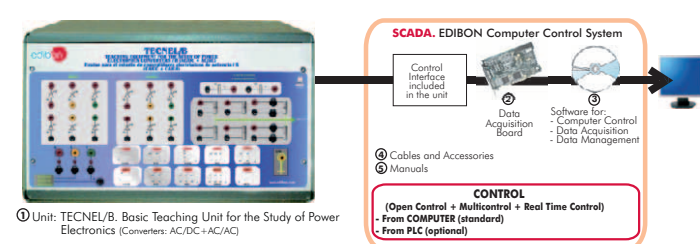
2.5- Digital Electronics (Advanced)

www.edibon.com/products/index.php?area=electronics&subarea=digital&lang=en

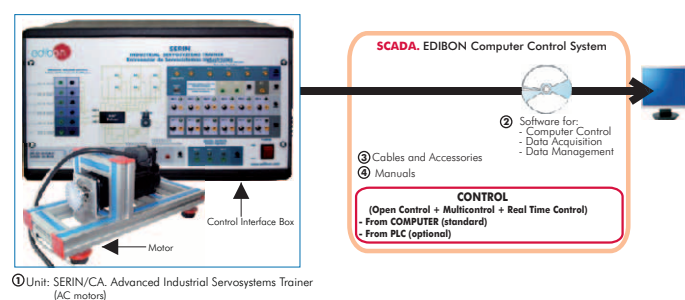
TDS. Computer Controlled Teaching Unit for the Study of Digital Signal Processing



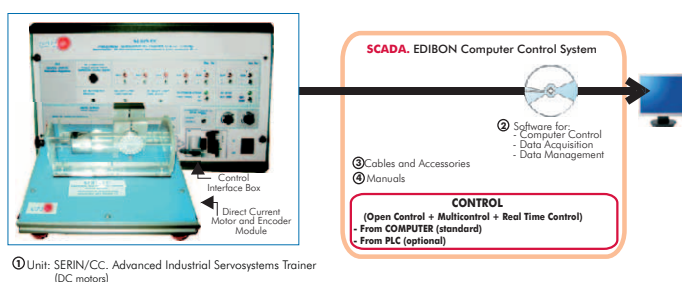
2.6- Industrial Electronics (Advanced)

www.edibon.com/products/index.php?area=electronics&subarea=industrial&lang=en
TECNEL. Computer Controlled Teaching Unit for the Study of Power Electronics (with IGBTs)
(Converters: DC/AC+AC/DC+DC/DC+AC/AC)TECNEL/B. Computer Controlled Basic Teaching Unit for the Study of Power Electronics (no IGBTs)
(Converters: AC/DC+AC/AC)

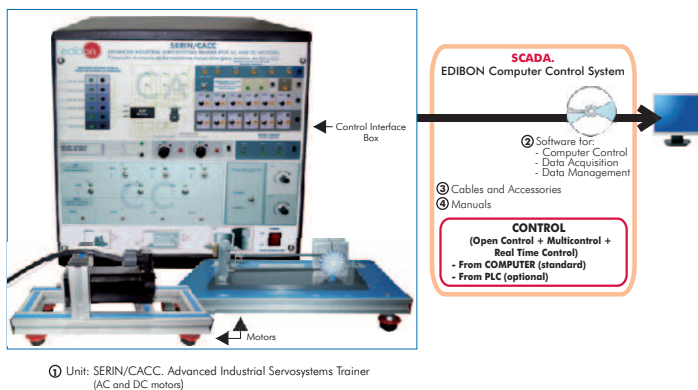
SERIN/CA. Computer Controlled Advanced Industrial Servosystems Trainer (AC motors)



SERIN/CC. Computer Controlled Advanced Industrial Servosystems Trainer (DC motors)



SERIN/CACC. Computer Controlled Advanced Industrial Servosystems Trainer (AC and DC motors)



Industrial Electronics (Basic)

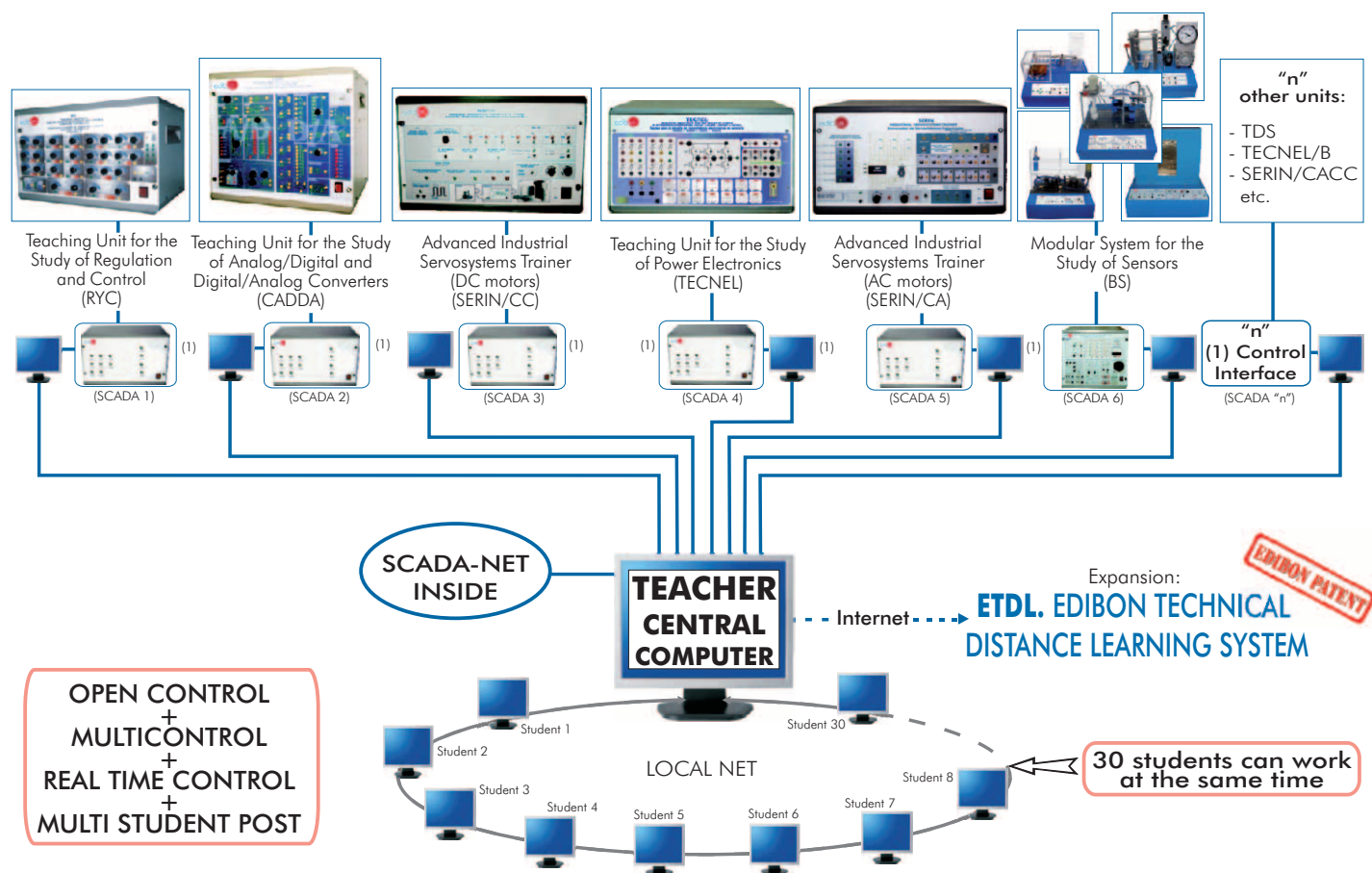
SERIN/CCB. Basic Servosystems Trainer (DC motors)



SERIN/CAB. Basic Servosystems Trainer (AC motors)



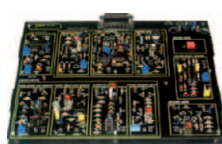
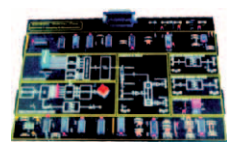
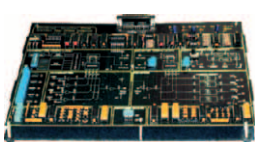
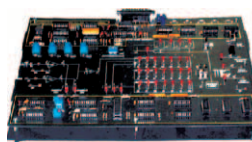
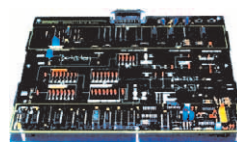
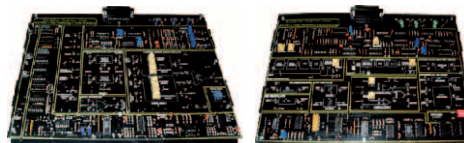
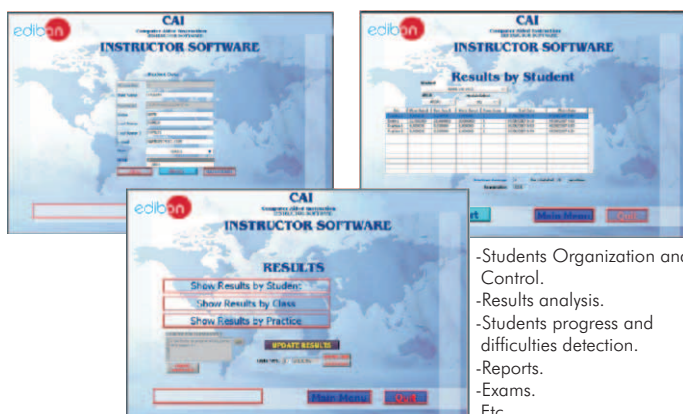
ESN. EDIBON Scada-Net System for Electronics



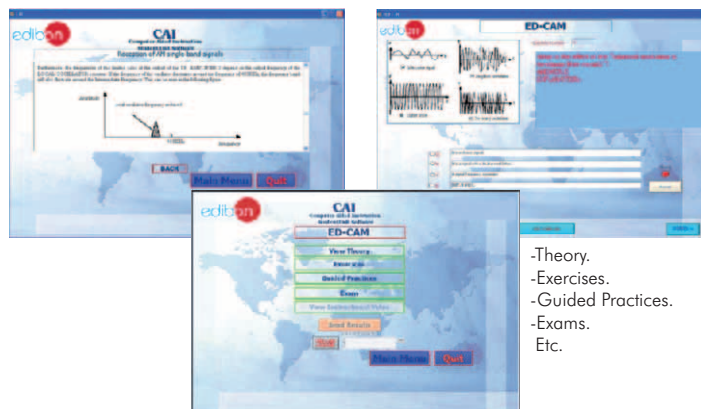
Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC's) or ESN-PLC (only PLC's) or ESN-PCPLC (PC's + PLC's).

LICOMBA. Communications Integrated Laboratory:**Power Supply**

FA-CO. Power Supply

EBC-100. Base Unit,
with built-in power supply**Modules****► Analog Communications**ED-CAM.
AM CommunicationsED-CFM.
FM Communications**► Digital Communications**EDICOM 1.
Signals Sampling and
ReconstructionEDICOM 2.
Time Division Multiplex
(TDM). PAM Transmitter
and ReceiverEDICOM 3.
MIC-TDM Transmission/
ReceptionEDICOM 4.
Delta Modulation and
DemodulationEDICOM 5.
Line codes. Signal
Modulation and DemodulationEDICOM 6.
Optical Fibre Transmission
and Reception**CAI. Computer Aided Instruction Software System****Instructor Software**

- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

Student/Module Software

- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student/Module Software Packages:

► Analog Communications

- ED-CAM/SOF. AM Communications.
- ED-CFM/SOF. FM Communications.

► Digital Communications

- EDICOM 1/SOF. Signals Sampling and Reconstruction.
- EDICOM 2/SOF. Time Division Multiplex (TDM). PAM Transmitter and Receiver.
- EDICOM 3/SOF. MIC-TDM Transmission/Reception.
- EDICOM 4/SOF. Delta Modulation and Demodulation.
- EDICOM 5/SOF. Line codes. Signal Modulation and Demodulation.
- EDICOM 6/SOF. Optical Fibre Transmission and Reception.

www.edibon.com/products/index.php?area=communications&subarea=analog&lang=en

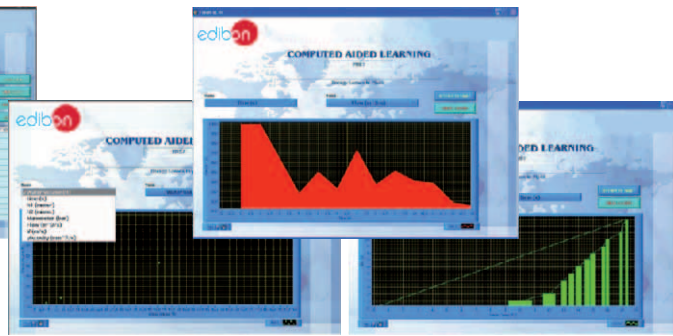
www.edibon.com/products/index.php?area=communications&subarea=digital&lang=en

LICOMBA. **Communications Integrated Laboratory:**

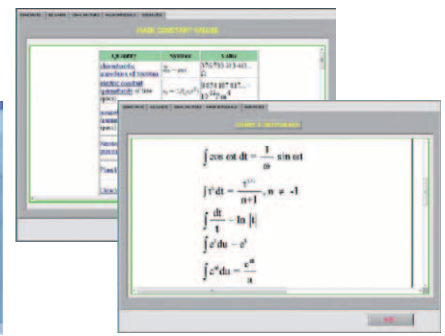
LICOMBA/CAL. Computer Aided Learning Software (Results Calculation and Analysis)



Calculations



Plotting options



Information of constant values, unit conversion factors and integral and derivative tables

Available Software Packages:

➤ Analog Communications

- ED-CAM/CAL. AM Communications.
- ED-CFM/CAL. FM Communications.

➤ Digital Communications

- EDICOM 1/CAL. Signals Sampling and Reconstruction.
- EDICOM 2/CAL. Time Division Multiplex (TDM). PAM Transmitter and Receiver.
- EDICOM 3/CAL. MIC-TDM Transmission/Reception.
- EDICOM 4/CAL. Delta Modulation and Demodulation.
- EDICOM 5/CAL. Line codes. Signal Modulation and Demodulation.
- EDICOM 6/CAL. Optical Fibre Transmission and Reception.

EDAS/VIS. EDIBON Data Acquisition System + Virtual Instrumentation System



Data Acquisition Interface Box

+

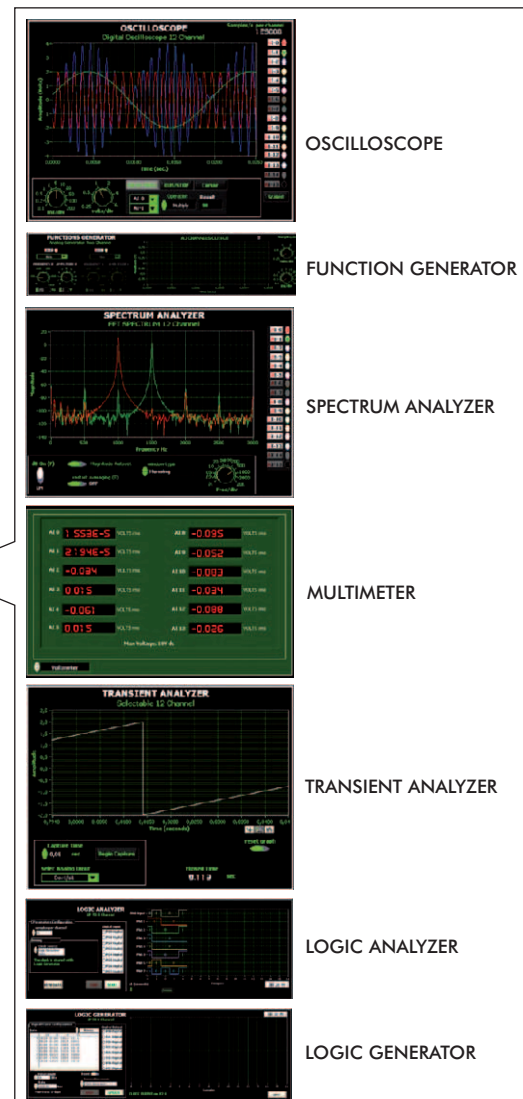


Data Acquisition Board

+



Data Acquisition and Virtual Instrumentation Software



OSCILLOSCOPE

FUNCTION GENERATOR

SPECTRUM ANALYZER

MULTIMETER

TRANSIENT ANALYZER

LOGIC ANALYZER

LOGIC GENERATOR



Computer (not included in the supply)

➔ Sampling rate up to: **1,250,000 S/s (samples per second).**

3.1- Analog Communications

3.2- Digital Communications

www.edibon.com/products/index.php?area=communications&subarea=analog&lang=en

www.edibon.com/products/index.php?area=communications&subarea=digital&lang=en

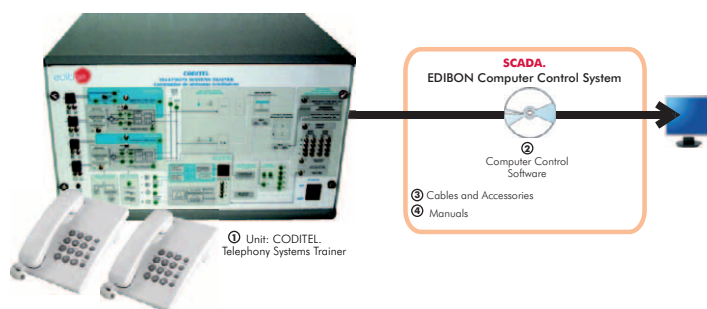
EMDA. Analogue and Digital Modulations Trainer **NEW**



3.3- Telephony

www.edibon.com/products/index.php?area=communications&subarea=telephony&lang=en

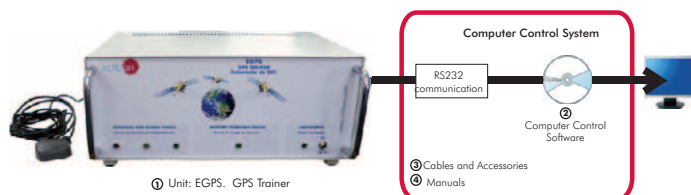
CODITEL. Telephony Systems Trainer



3.4- Applied Communications

www.edibon.com/products/index.php?area=communications&subarea=appliedcommunications&lang=en

EGPS. GPS Trainer **NEW**



Other available Units:

- EAN. **Antenna Trainer**
- ESA. **Satellite Trainer**
- EMI. **Microwave Trainer**
- EBL. **Bluetooth Trainer**
- ETM. **Cellular Mobile Trainer**
- ERA. **Radar Trainer**

4.1- Basic Electricity

www.edibon.com/products/index.php?area=electricity&subarea=basic&lang=en

LIELBA. **Electrical Installations Integrated Laboratory:**

Domestic Electrical Installations

>General



AD1A.
Robbery Alarm Station



AD3A.
Fire Alarm Station



AD5.
Temporization of Stairs



AD13.
Audio Door Entry System



AD14.
Audio and Video Door Entry System

>Industrial Control



AD6A.
Luminosity Control Station



AD9A.
Heating Control Station



AD15A.
Position Control Station



AD17A.
Photoelectric Control Position Station



AD22.
Flooding Control Station



AD23.
Wireless Basic Control Station (RF)



AD24.
Position Switch



AD25A.
Control Station for Domestic Electric Services through the Telephone

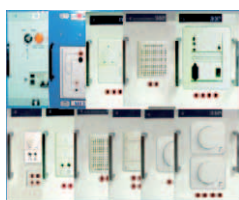


AD28A.
Integral Control Station of Domestic Electric Systems



AD30.
Gas Control Station

>Sound

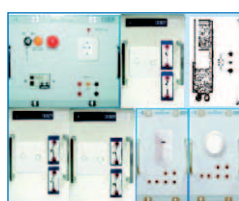


AD19A.
Sound Station



AD31.
Movement and Sound Detection and Control

>Instruments



AD8.
Blinds Activator



AD11A.
Network Analyzer



AD32.
24 Vac/12 Vdc Circuits Analyzer



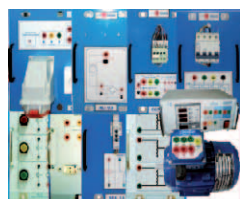
AD33.
Installations Faults Simulator

>Starters and Motors

Industrial Electrical Installations



AI1.
Star-Delta Starter



AI2.
Starter through Auto-Transformer



AI4.
Starter-Inverter



AI5.
AC Wound Rotor Motor Starter



AI6.
DC Motor Starter



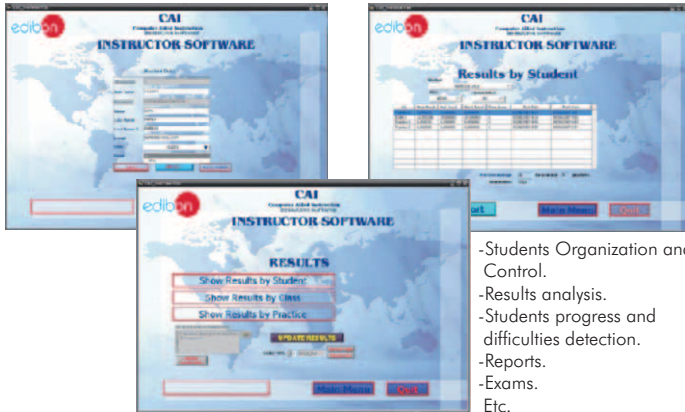
AI12.
Modular Trainer (AC Motors)

LIELBA. **Electrical Installations Integrated Laboratory:****Industrial Electrical Installations****>Speed Control**AI3.
Speed Commutator for
Dahlander MotorAI7.
Automatic Change of Speed
of a Dahlander Motor with
Change of Direction**>Electrotecnics**AI8.
Reactive Power
Compensation (Power
Factor Correction)AI13.
Modular Trainer for
ElectrotecnicsAI13-A.
Modular Trainer for
Electrotecnics
(RLC Circuits)AI13-B.
Modular Trainer for
Electrotecnics
(Electrostatic Kit)AI13-C.
Modular Trainer for
Electrotecnics
(Motors)AI13-D.
Modular Trainer for
Electrotecnics (Transformers)AI13-E.
Modular Trainer for
Electrotecnics (Lighting)**>Safety**AI9.
People Safety Against Indirect
Electrical Contacts in TT
Neutral RegimenAI10.
People Safety Against Indirect
Electrical Contacts in TN
Neutral RegimenAI11.
People Safety Against Indirect
Electrical Contacts in IT
Neutral Regimen**Energy Installations****>Protection and Relays**AE3.
Test Unit for Magneto-
Thermal Automatic SwitchesAE4.
Test Unit for Differential
Automatic SwitchesAE5.
Relay Control StationAE7.
Multi-Functional Electrical
Protection StationAE9. **Directional Relay:**
Earth Fault Detection. Directional
Power Flow Detection.
Reactive Power Flow DetectionERP
Protection Relay Test**>Measurements and Control**AE2.
Reactive Energy Control
and CompensationAE6.
Energy Counters Control
StationAE8.
Power & Torque Measurements
of Electrical MotorsAVR/P.
Automatic Voltage
Regulator/PAE1.
Aerial Line Model**>Lines**

LIELBA. Electrical Installations Integrated Laboratory:

CAI. Computer Aided Instruction Software System

Instructor Software



- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

Student/Application Software



- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student/Application Software Packages:

Domestic Electrical Installations

>General

- AD1A/SOF. Robbery Alarm Station.
- AD3A/SOF. Fire Alarm Station.
- AD5/SOF. Temporization of Stairs.
- AD13/SOF. Audio Door Entry System.
- AD14/SOF. Audio and Video Door Entry System.

>Industrial Control

- AD6A/SOF. Luminosity Control Station.
- AD9A/SOF. Heating Control Station.
- AD15A/SOF. Position Control Station.
- AD17A/SOF. Photoelectric Control Position Station.
- AD22/SOF. Flooding Control Station.
- AD23/SOF. Wireless Basic Control Station (RF).
- AD24/SOF. Position Switch.
- AD25A/SOF. Control Station for Domestic Electric Services through the Telephone.
- AD28A/SOF. Integral Control Station of Domestic Electric Systems.
- AD30/SOF. Gas Control Station.

>Sound

- AD19A/SOF. Sound Station.
- AD31/SOF. Movement and Sound Detection and Control.

>Instruments

- AD8/SOF. Blinds Activator.
- AD11A/SOF. Network Analyzer.
- AD32/SOF. 24 Vac/12 Vdc Circuits Analyzer.

>Starters and Motors

- AD33/SOF. Installations Faults Simulator.
- AI1/SOF. Star-Delta Starter.
- AI2/SOF. Starter through Auto-Transformer.
- AI4/SOF. Starter-Inverter.
- AI5/SOF. AC Wound Rotor Motor Starter.
- AI6/SOF. DC Motor Starter.
- AI12/SOF. Modular Trainer (AC Motors).

>Speed Control

- AI3/SOF. Speed Commutator for Dahlander Motor.
- AI7/SOF. Automatic Change of Speed of a Dahlander Motor with Change of Direction.

>Electrotecnics

- AI8/SOF. Reactive Power Compensation (Power Factor Correction).
- AI13/SOF. Modular Trainer for Electrotecnics.
- AI13-A/SOF. Modular Trainer for Electrotecnics (RLC Circuits).
- AI13-B/SOF. Modular Trainer for Electrotecnics (Electrostatic Kit).
- AI13-C/SOF. Modular Trainer for Electrotecnics (Motors).
- AI13-D/SOF. Modular Trainer for Electrotecnics (Transformers).
- AI13-E/SOF. Modular Trainer for Electrotecnics (Lighting).

>Safety

- AI9/SOF. People Safety Against Indirect Electrical Contacts in TT Neutral Regimen.
- AI10/SOF. People Safety Against Indirect Electrical Contacts in TN Neutral Regimen.
- AI11/SOF. People Safety Against Indirect Electrical Contacts in IT Neutral Regimen.

Energy Installations

>Protection and Relays

- AE3/SOF. Test Unit for Magneto-Thermal Automatic Switches.
- AE4/SOF. Test Unit for Differential Automatic Switches.
- AE5/SOF. Relay Control Station.
- AE7/SOF. Multi-Functional Electrical Protection Station.
- AE9/SOF. Directional Relay: Earth Fault Detection. Directional Power Flow Detection. Reactive Power Flow Detection.

>Measurements and Control

- AE2/SOF. Reactive Energy Control and Compensation.
- AE6/SOF. Energy Counters Control Station.
- AE8/SOF. Power & Torque Measurements of Electrical Motors.

>Lines

- AE1/SOF. Aerial Line Model.

MUAD. Electric Power Data Acquisition System



Electric Power Interface Box



Data Acquisition Board



Data Acquisition Software



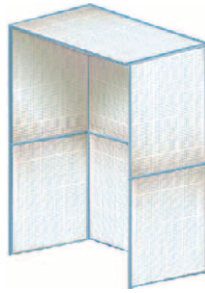
VOLTAGE & CURRENT

POWER SPECTRUM

DC and RMS

Computer (not included in the supply)

→ Sampling rate up to: **250,000 S/s (samples per second).**

ELE-KITS. **Electrical Installations Assembly Kits:****Installation Cubicle****Domestic Electrical Installations****> General**

KD1A.
Robbery Alarm Station
Kit



KD3A.
Fire Alarm Station
Kit



KD5.
Temporization of Stairs
Kit



KD13.
Audio Door Entry
System Kit



KD14.
Audio and Video Door
Entry System Kit

> Industrial Control

KD6A.
Luminosity Control
Station Kit



KD9A.
Heating Control
Station Kit



KD15A.
Position Control Station
Kit



KD17A.
Photoelectric Control
Position Station Kit



KD22.
Flooding Control
Station Kit



KD23.
Wireless Basic Control
Station (RF) Kit



KD24.
Position Switch
Kit



KD25A.
Kit of Control Station for
Domestic Electric Services
through the Telephone



KD28A.
Kit of Integral Control
Station of Domestic
Electric Systems



KD30.
Gas Control Station
Kit

> Sound

KD19A.
Sound Station
Kit



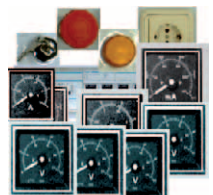
KD31.
Movement and Sound
Detection and Control
Kit

> Instruments

KD8.
Blinds Activator Kit



KD11A.
Network Analyzer
Kit



KD32.
24 Vac/12 Vdc Circuits
Analyzer Kit



KD33.
Installations Faults
Simulator Kit

ELE-KITS. Electrical Installations Assembly Kits:

Industrial Electrical Installations

> Starters and Motors



KI1.
Star-Delta Starter
Kit



KI2.
Starter through
Auto-Transformer Kit



KI4.
Starter-Inverter
Kit



KI5.
AC Wound Rotor
Motor Starter Kit



KI6.
DC Motor Starter
Kit

> Speed Control



KI3.
Speed Commutator
for Dahlander Motor Kit



KI7.
Kit of Automatic Change of
Speed of a Dahlander Motor
with Change of Direction

> Electrotechnics



KI8.
Kit of Reactive Power
Compensation (Power
Factor Correction)

> Safety



KI9.
Kit of People Safety Against
Indirect Electrical Contacts
in TT Neutral Regimen



KI10.
Kit of People Safety Against
Indirect Electrical Contacts
in TN Neutral Regimen



KI11.
Kit of People Safety Against
Indirect Electrical Contacts
in IT Neutral Regimen

Energy Installations

> Protection and Relays



KE3.
Kit of Test Unit for
Magneto-Thermal
Automatic Switches



KE4.
Kit of Test Unit for
Differential
Automatic Switches



KE5.
Relay Control Station
Kit



KE7.
Multi-Functional
Electrical Protection
Station Kit



KE9. Kit of Directional Relay:
Earth Fault Detection, Directional
Power Flow Detection,
Reactive Power Flow Detection

> Measurements and Control



KE2.
Kit of Reactive Energy
Control and Compensation



KE6.
Energy Counters Control
Station Kit



KE8.
Kit of Power & Torque
Measurements of Electrical
Motors



KE1.
Aerial Line Model
Kit

Electricity Demonstration



PDL.
Lamps Demonstration
Panel



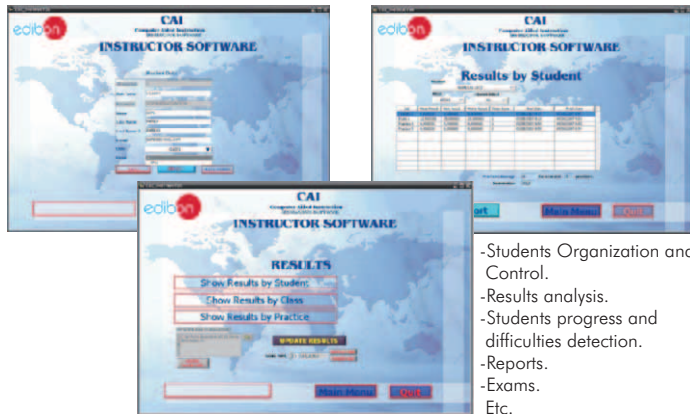
PDCE-P.
Electric Cables
Demonstration Panel
(Power)



PDCE-S.
Electric Cables
Demonstration Panel
(Signalling)



PDF.
Fuses Demonstration
Panel

ELE-KITS. **Electrical Installations Assembly Kits:****CAI. Computer Aided Instruction Software System****Instructor Software**

- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

Student/Kit Software

- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student/Kit Software Packages:**Domestic Electrical Installations****>General**

- KD1A/SOF. Robbery Alarm Station Kit.
- KD3A/SOF. Fire Alarm Station Kit.
- KD5/SOF. Temporization of Stairs Kit.
- KD13/SOF. Audio Door Entry System Kit.
- KD14/SOF. Audio and Video Door Entry System Kit.

>Industrial Control

- KD6A/SOF. Luminosity Control Station Kit.
- KD9A/SOF. Heating Control Station Kit.
- KD15A/SOF. Position Control Station Kit.
- KD17A/SOF. Photoelectric Control Position Station Kit.
- KD22/SOF. Flooding Control Station Kit.
- KD23/SOF. Wireless Basic Control Station (RF) Kit.
- KD24/SOF. Position Switch Kit.

- KD25A/SOF. Kit of Control Station for Domestic Electric Services through the Telephone.
- KD28A/SOF. Kit of Integral Control Station of Domestic Electric Systems.

- KD30/SOF. Gas Control Station Kit.
- >Sound**
- KD19A/SOF. Sound Station Kit.
- KD31/SOF. Movement and Sound Detection and Control Kit.

>Instruments

- KD8/SOF. Blinds Activator Kit.
- KD11A/SOF. Network Analyzer Kit.
- KD32/SOF. 24 Vac/12 Vdc Circuits Analyzer Kit.
- KD33/SOF. Installations Faults Simulator Kit.

Industrial Electrical Installations**>Starters and Motors**

- KI1/SOF. Star-Delta Starter Kit.

- KI2/SOF. Starter through Auto-Transformer Kit.
- KI4/SOF. Starter-Inverter Kit.
- KI5/SOF. AC Wound Rotor Motor Starter Kit.

- KI6/SOF. DC Motor Starter Kit.
- >Speed Control**
- KI3/SOF. Speed Commutator for Dahlander Motor Kit.
- KI7/SOF. Kit of Automatic Change of Speed of a Dahlander Motor with Change of Direction.

>Electrotechnics

- KI8/SOF. Kit of Reactive Power Compensation (Power Factor Correction).
- >Safety**
- KI9/SOF. Kit of People Safety Against Indirect Electrical Contacts in TT Neutral Regimen.
- KI10/SOF. Kit of People Safety Against Indirect Electrical Contacts in TN Neutral Regimen.

- KI11/SOF. Kit of People Safety Against Indirect Electrical Contacts in IT Neutral Regimen.

Energy Installations**>Protection and Relays**

- KE3/SOF. Kit of Test Unit for Magneto-Thermal Automatic Switches.
- KE4/SOF. Kit of Test Unit for Differential Automatic Switches.
- KE5/SOF. Relay Control Station Kit.
- KE7/SOF. Multi-Functional Electrical Protection Station Kit.
- KE9/SOF. Kit of Directional Relay: Earth Fault Detection, Directional Power Flow Detection, Reactive Power Flow Detection.

>Measurements and Control

- KE2/SOF. Kit of Reactive Energy Control and Compensation.
- KE6/SOF. Energy Counters Control Station Kit.
- KE8/SOF. Kit of Power & Torque Measurements of Electrical Motors.

>Lines

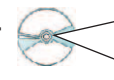
- KE1/SOF. Aerial Line Model Kit.

MUAD. Electric Power Data Acquisition System

Electric Power Interface Box



Data Acquisition Board



Data Acquisition Software



VOLTAGE & CURRENT

POWER SPECTRUM

DC and RMS

Computer
(not included
in the supply)

→ Sampling rate up to: **250,000 S/s (samples per second).**

4.4- Electrical Machines

www.edibon.com/products/index.php?area=electricity&subarea=machines&lang=en

LIMEL. Integrated Laboratory for Electrical Machines:

Electrical Machines Units



EME. Electrical Machines Unit
(Advanced option)



EME/M. Electrical Machines Unit
(Intermediate option)



EME/B. Electrical Machines Unit
(Basic option)

Measurement Units



EAL.
Network Analyzer Unit



EALD.
Network Analyzer Unit, with
Computer Data Acquisition +
Oscilloscope (PC)



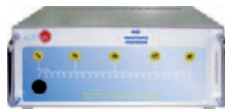
EALDG.
Network Analyzer Unit, with
Computer Data Acquisition +
Oscilloscope (PC) + Oscilloscope Display



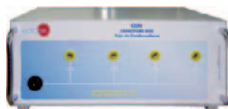
EAM-VA.
Analog Measurement
Unit



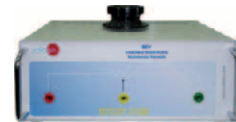
RCL3R.
Resistive, Inductive and
Capacitive Loads Module



IND.
Inductance



CON.
Box of Condensers



REV.
Variable Resistance

Others:
REV/T. Three-phase
Variable
Resistance
REF. Fixed Resistance

Loads

Motors

> Motors (DC)



EMT1.
D.C. Independent excitation
motor-generator



EMT2.
D.C. Series excitation
motor-generator



EMT3.
D.C. Shunt excitation
motor-generator



EMT4.
D.C. Compound excitation
motor-generator



EMT5.
D.C. Shunt-series
compound excitation motor



EMT12.
Universal motor
(single-phase)



EMT15.
D.C. Permanent
magnet motor



EMT18.
D.C. Brushless
motor



EMT19.
Stepper motor

WPP/B.
Velocity Control for
stepper motor

> Motors (AC)



EMT6.
A.C. Synchronous
Three-phase
motor alternator



EMT7.
Asynchronous
Three-phase motor
of squirrel cage



EMT7-B.
Asynchronous
Three-phase motor of
squirrel cage (4 poles)



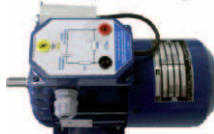
EMT8.
Asynchronous
Three-phase motor
with wound rotor



EMT9.
Dahlander Three-phase
(two-speeds)



EMT10.
Asynchronous
Three-phase motor of
two independent speeds



EMT11.
Asynchronous
Single-phase motor
with starting capacitor



EMT12.
Universal motor
(single-phase)



EMT14.
Repulsion motor,
single-phase with
short-circuited brushes



EMT16.
Asynchronous Single-phase
motor with starting and
running capacitor



EMT17.
Three-phase motor of
squirrel cage with "Y"
connection



EMT20.
Asynchronous Single-
phase motor with split
phase



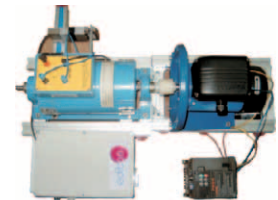
EMT21.
Three-phase Reluctance
motor

Other available Motor:

- EMT22. Single-phase Shaded Pole motor

LIMEL. Integrated Laboratory for Electrical Machines:

Brakes

FRE-FE.
Electronic BrakeDI-FRE.
Pendular Dynamo BrakeEMCC.
Load Cell ModuleFREND.
Dynamo BrakeFRENP.
Magnetic Powder BrakeFREPR.
Prony BrakeFRECP.
Eddy Current Brake

Transformers

ETT.
Three-phase and Single-phase
Transformers UnitTPPT.
Three-phase Power
Transformer UnitEMPTA.
Auxiliary Transformer
and Protection ModuleAUTR.
Variable Auto-TransformerTRANS.
Single-phase
TransformerTRANS/3.
Three-phase
Transformer

DC Motor Speed Control

WCC.
DC Motor Speed ControllerWCC/M.
DC Motor Speed Controller
(Intermediate option)WCC/B.
DC Motor Speed Controller,
with no other elements

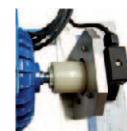
AC Motor Speed Control

WCA.
AC Motor Speed ControllerWCA/M.
AC Motor Speed Controller
(Intermediate option)WCA/B.
AC Motor Speed Controller,
with no other elements

PLC

PLC-PI.
PLC Module for Unit Operations
ControlEDIBON FP-X-CPU.
PLC,
with no other elements

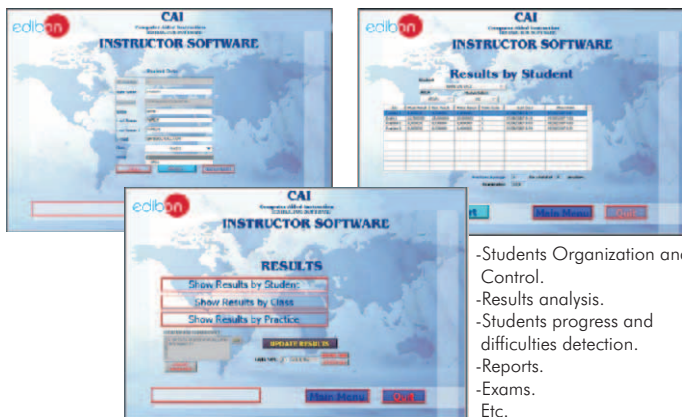
Tachogenerator

TECNEL/T.
Tachogenerator

LIMEL. Integrated Laboratory for Electrical Machines:

CAI. Computer Aided Instruction Software System

Instructor Software



- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

Student/Motor Software



- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student/Motor Software Packages:

►Motors (DC)

- EMT1/SOF. D.C. Independent excitation motor-generator.
- EMT2/SOF. D.C. Series excitation motor-generator.
- EMT3/SOF. D.C. Shunt excitation motor-generator.
- EMT4/SOF. D.C. Compound excitation motor-generator.
- EMT5/SOF. D.C. Shunt-series compound excitation motor.
- EMT12/SOF. Universal motor (single-phase).
- EMT15/SOF. D.C. Permanent magnet motor.
- EMT18/SOF. D.C. Brushless motor.
- EMT19/SOF. Stepper motor.

►Motors (AC)

- EMT6/SOF. A.C. Synchronous Three-phase motor alternator
- EMT7/SOF. Asynchronous Three-phase motor of squirrel cage.
- EMT7-B/SOF. Asynchronous Three-phase motor of squirrel cage (4 poles).
- EMT8/SOF. Asynchronous Three-phase motor with wound rotor.
- EMT9/SOF. Dahlander Three-phase (two-speeds).
- EMT10/SOF. Asynchronous Three-phase motor of two independent speeds.
- EMT11/SOF. Asynchronous Single-phase motor with starting capacitor.
- EMT12/SOF. Universal motor (single-phase).
- EMT14/SOF. Repulsion motor, single-phase with short-circuited brushes.
- EMT16/SOF. Asynchronous Single-phase motor with starting and running capacitor.
- EMT17/SOF. Three-phase motor of squirrel cage with "Y" connection.
- EMT20/SOF. Asynchronous Single-phase motor with split phase.
- EMT21/SOF. Three-phase Reluctance motor.
- EMT22/SOF. Single-phase Shaded Pole motor.

CAL. Computer Aided Learning Software (Results Calculation and Analysis)



Calculations

Plotting options

Information of constant values, unit conversion factors and integral and derivative tables

Available Student/Motor Software Packages:

►Motors (DC)

- EMT1/CAL. D.C. Independent excitation motor-generator.
- EMT2/CAL. D.C. Series excitation motor-generator.
- EMT3/CAL. D.C. Shunt excitation motor-generator.
- EMT4/CAL. D.C. Compound excitation motor-generator.
- EMT5/CAL. D.C. Shunt-series compound excitation motor.
- EMT12/CAL. Universal motor (single-phase).
- EMT15/CAL. D.C. Permanent magnet motor.
- EMT18/CAL. D.C. Brushless motor.
- EMT19/CAL. Stepper motor.

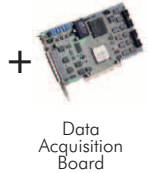
►Motors (AC)

- EMT6/CAL. A.C. Synchronous Three-phase motor alternator
- EMT7/CAL. Asynchronous Three-phase motor of squirrel cage.
- EMT7-B/CAL. Asynchronous Three-phase motor of squirrel cage (4 poles).
- EMT8/CAL. Asynchronous Three-phase motor with wound rotor.
- EMT9/CAL. Dahlander Three-phase (two-speeds).
- EMT10/CAL. Asynchronous Three-phase motor of two independent speeds.
- EMT11/CAL. Asynchronous Single-phase motor with starting capacitor.
- EMT12/CAL. Universal motor (single-phase).
- EMT14/CAL. Repulsion motor, single-phase with short-circuited brushes.
- EMT16/CAL. Asynchronous Single-phase motor with starting and running capacitor.
- EMT17/CAL. Three-phase motor of squirrel cage with "Y" connection.
- EMT20/CAL. Asynchronous Single-phase motor with split phase.
- EMT21/CAL. Three-phase Reluctance motor.
- EMT22/CAL. Single-phase Shaded Pole motor.

LIMEL. Integrated Laboratory for Electrical Machines:

MUAD. Electric Power Data Acquisition System

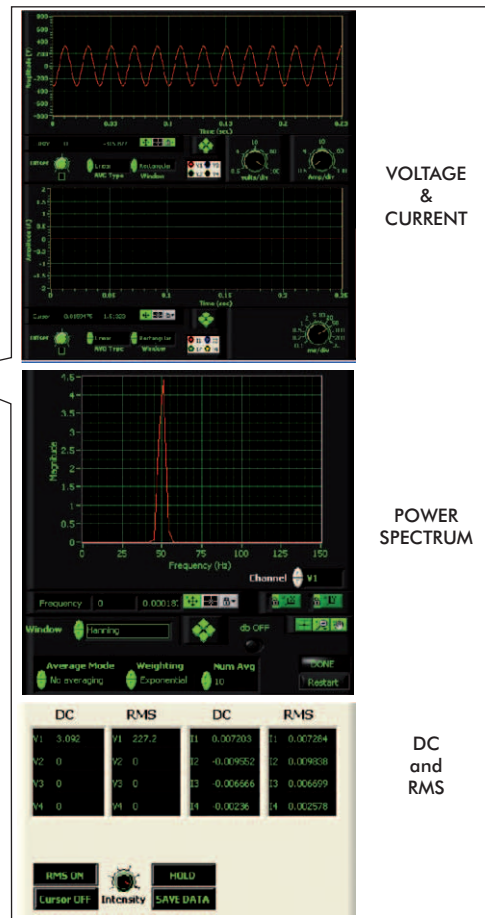
Electric Power Interface Box



Data Acquisition Board



Data Acquisition Software

→ Sampling rate up to: **250,000 S/s (samples per second).**Computer
(not included
in the supply)

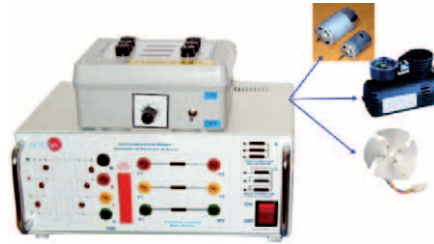
4.4- Electrical Machines

www.edibon.com/products/index.php?area=electricity&subarea=machines&lang=en

ESAM. Faults Simulation Trainer in Electrical Motors



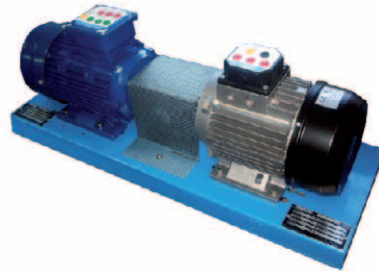
ESAE. Electrical Faults Simulation Trainer



EEA. Alternators Study Unit



EGMG24. Motor-Generator Group, three-phase 24 Vac, no excitation required (permanent magnets)



ERP. Protection Relay Test:

ERP-UB. **Protection Relays Test Unit**
(common for the relays modules type "ERP")



Available Relays Modules

(for use with the Protection Relays Test Unit (ERP-UB))



ERP-SFT. **Overcurrent and Earth Fault Protection Relay Module**



ERP-SDND. **Directional/Non Directional Overcurrent Protection Relay Module**



ERP-PDF. **Differential Protection Relay Module**



ERP-MA. **Feeders Management Relay Module**

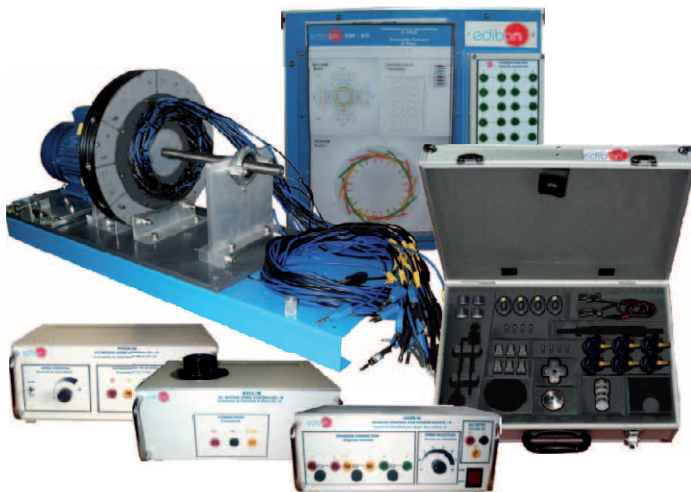


ERP-PD. **Distance Protection Relay Module**

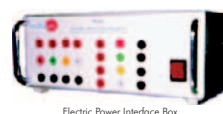
4.5- Electrical Machines Kits

www.edibon.com/products/index.php?area=electricity&subarea=machineskits&lang=en

EMT-KIT. Disassembly Machines Kit



MUAD. Electric Power Data Acquisition System (for EMT-KIT)



Electric Power Interface Box

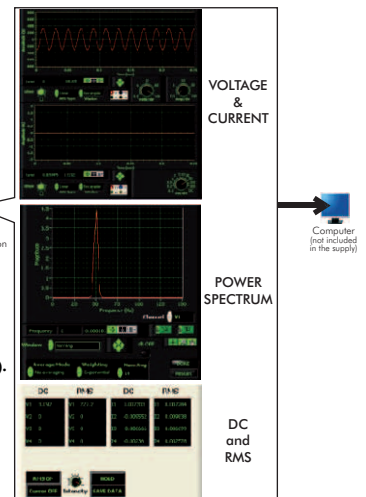


Data Acquisition Board

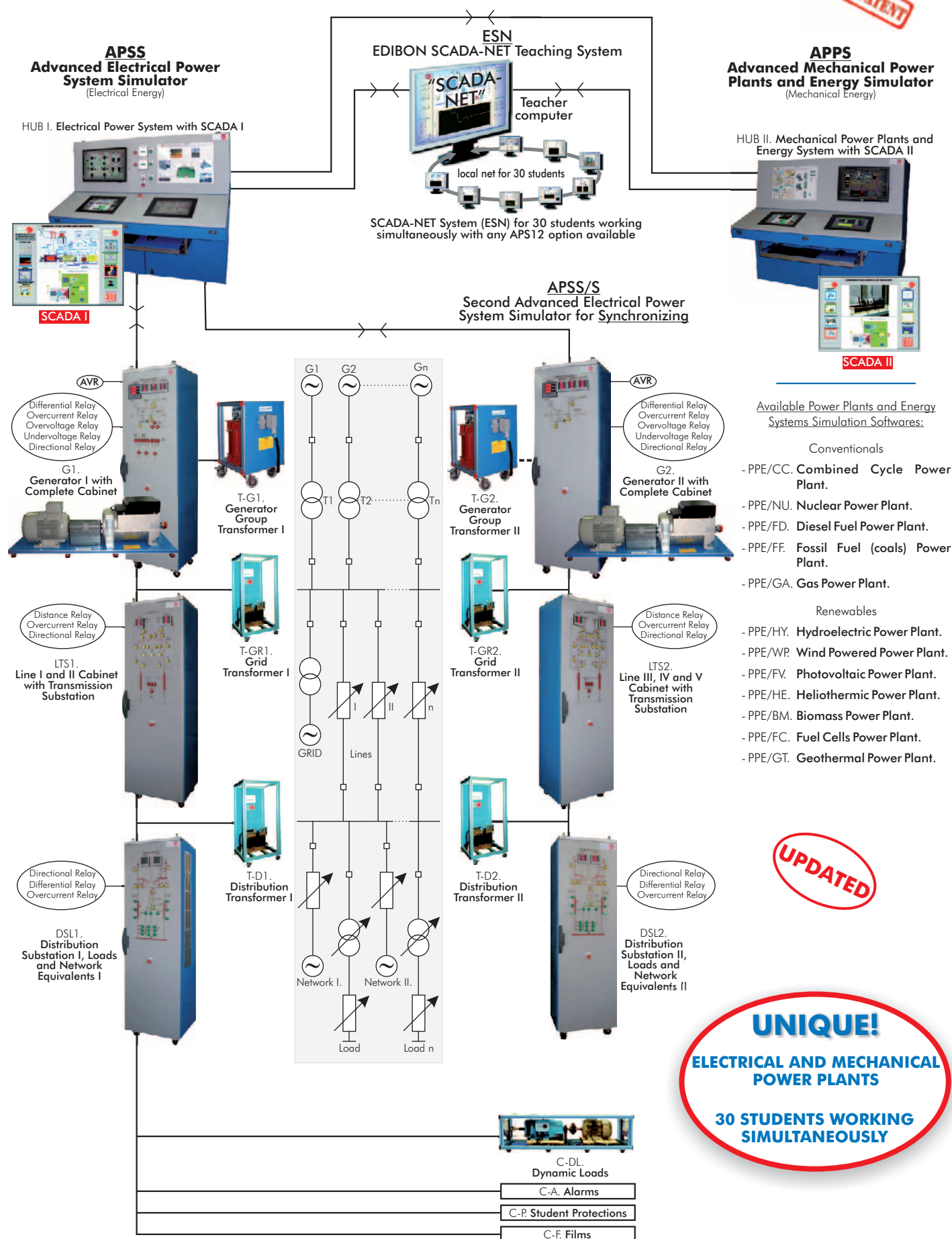


Data Acquisition Software

→ Sampling rate up to: **250,000 S/s (samples per second)**.



APS12. **Advanced Electrical Power System and Mechanical Power Plants Simulator** (Generation, Transformation, Transport, Distribution and Consumption)

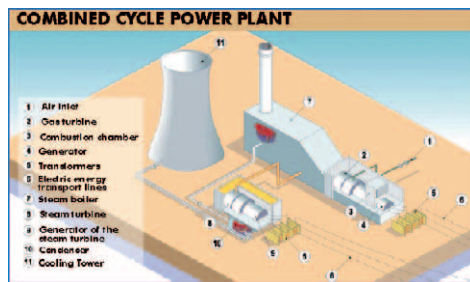


5.2- Energy Power Plants

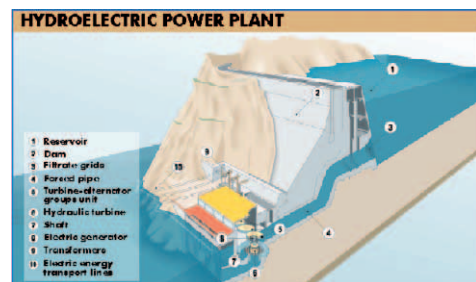
www.edibon.com/products/index.php?area=energy&subarea=energypowerplants&lang=en

APS12. **Advanced Electrical Power System and Mechanical Power Plants Simulator** (Generation, Transformation, Transport, Distribution and Consumption)

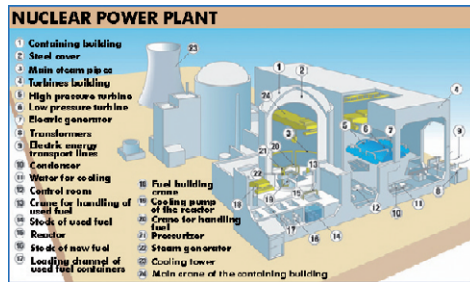
Available Power Plants and Energy Systems Simulation:



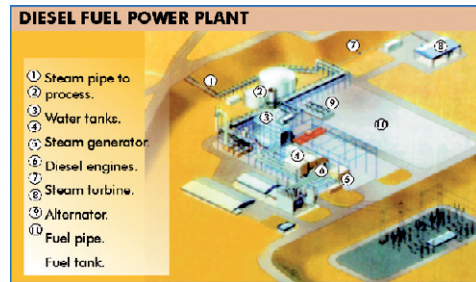
Combined Cycle Power Plant



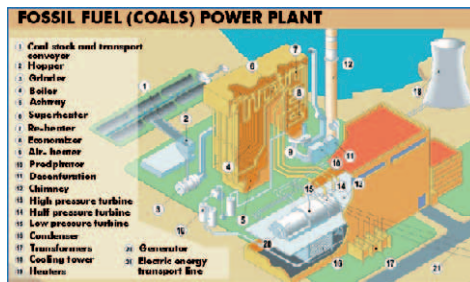
Hydroelectric Power Plant



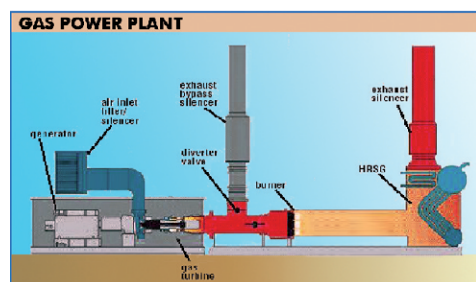
Nuclear Power Plant



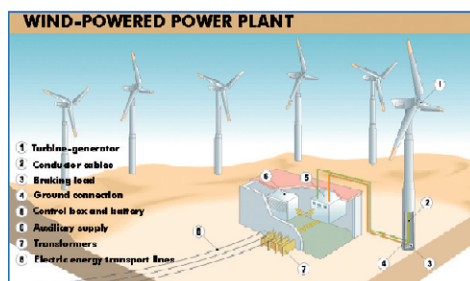
Diesel Fuel Power Plant



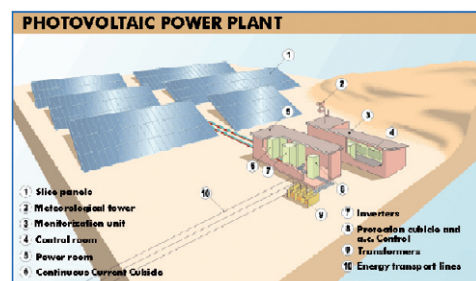
Fossil Fuel (coals) Power Plant



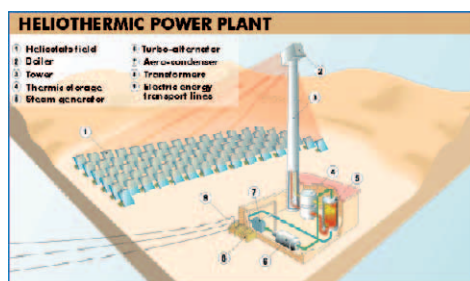
Gas Power Plant



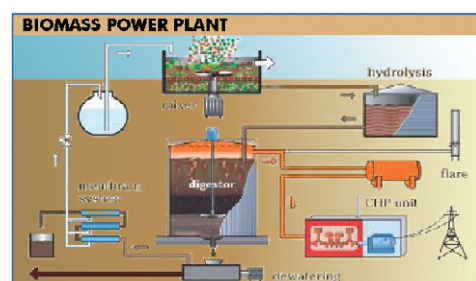
Wind-Powered Power Plant



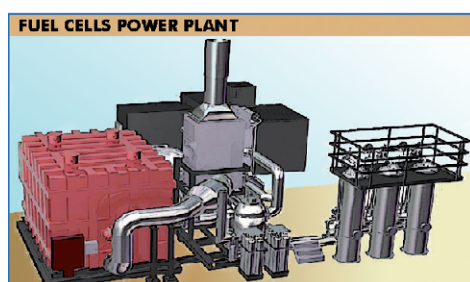
Photovoltaic Power Plant



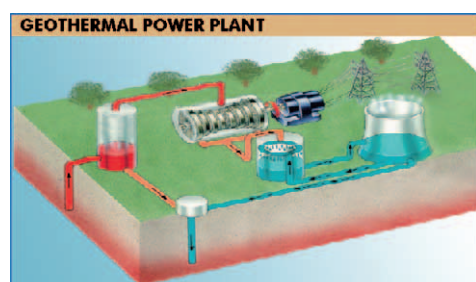
Heliothermic Power Plant



Biomass Power Plant



Fuel Cells Power Plant



Geothermal Power Plant

MPSS. **Modular Power System Simulator** **NEW**

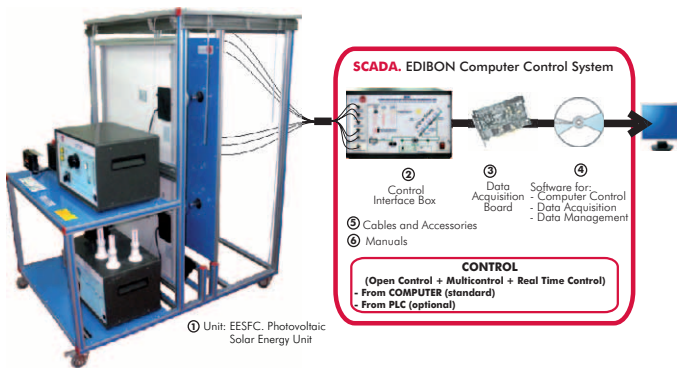


5.3- Renewable (Alternative) Energies

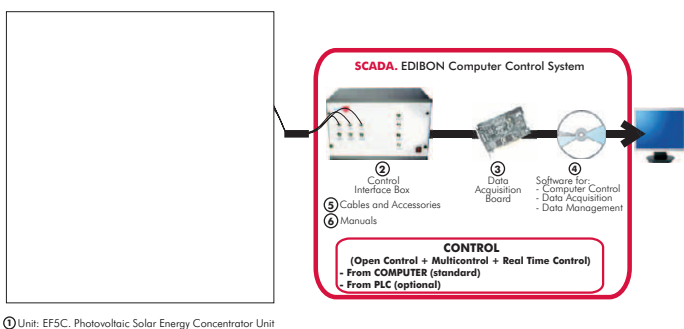
► **Photovoltaic**

EE5FC. Computer Controlled **Photovoltaic Solar Energy Unit ***

MINI-EE5F. **Photovoltaic Solar Energy Modular Trainer**



EF5C. Computer Controlled **Photovoltaic Solar Energy Concentrator Unit *** **NEW**



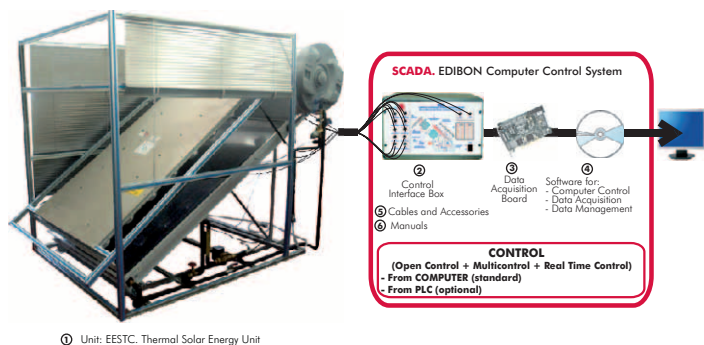
* Non computer controlled version available too.

5.3- Renewable (Alternative) Energies

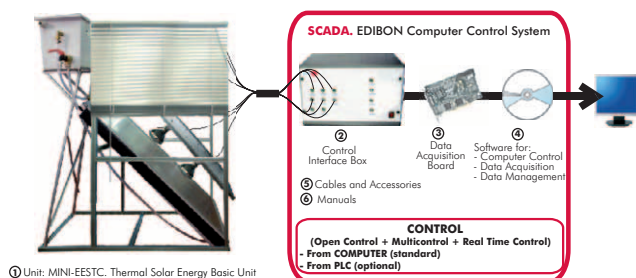
www.edibon.com/products/index.php?area=energy&subarea=alternativeenergies&lang=en

>Solar Thermal

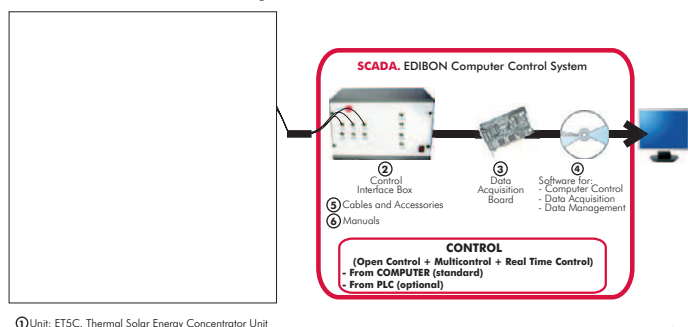
EESTC. Computer Controlled Thermal Solar Energy Unit *



MINI-EESTC. Computer Controlled Thermal Solar Energy Basic Unit*

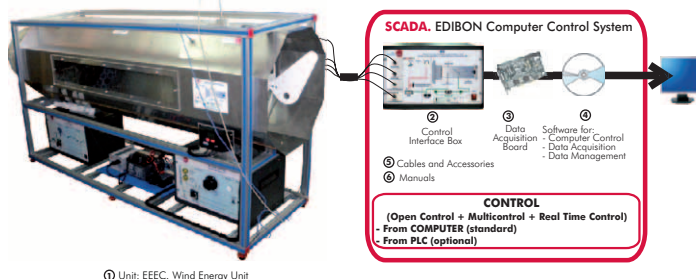


ET5C. Computer Controlled Thermal Solar Energy Concentrator Unit*

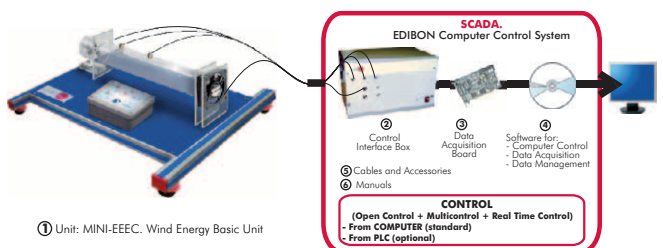


>Wind

EEEC. Computer Controlled Wind Energy Unit *

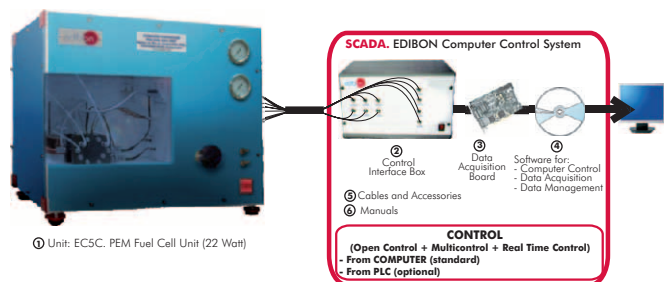


MINI-EEEC. Computer Controlled Wind Energy Basic Unit*

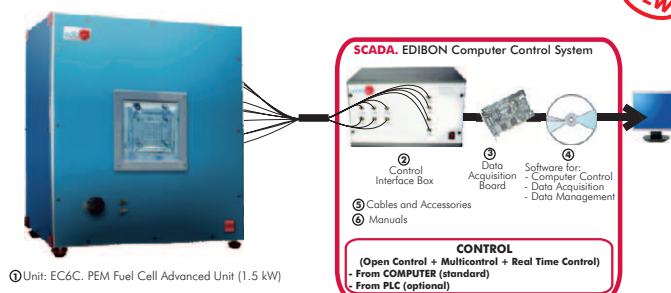


>Fuel Cells

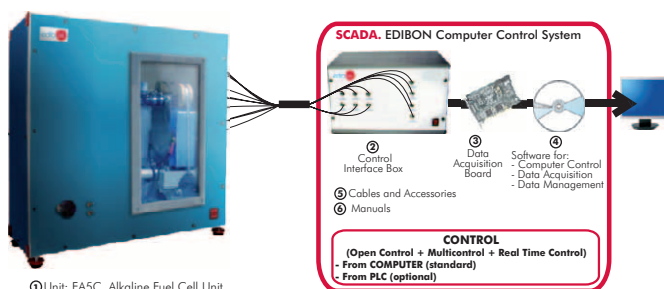
EC5C. Computer Controlled PEM Fuel Cell Unit (22 Watt)*



EC6C. Computer Controlled PEM Fuel Cell Advanced Unit (1.5 kW)*

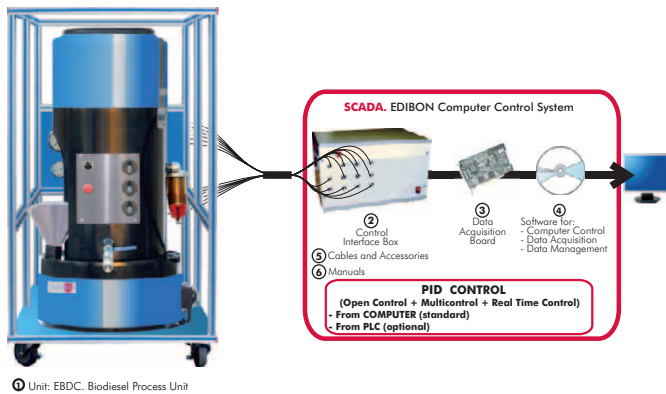


EA5C. Computer Controlled Alkaline Fuel Cell Unit *

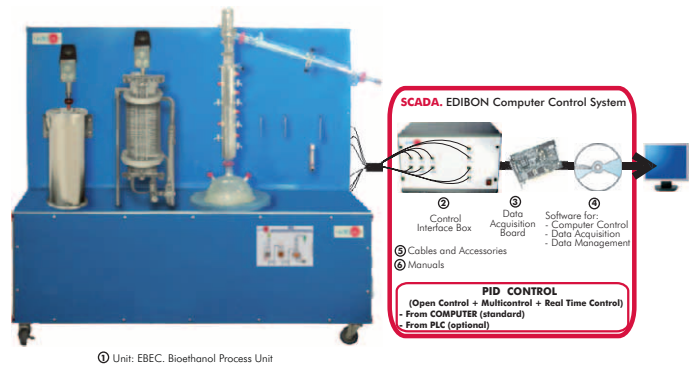


* Non computer controlled version available too.

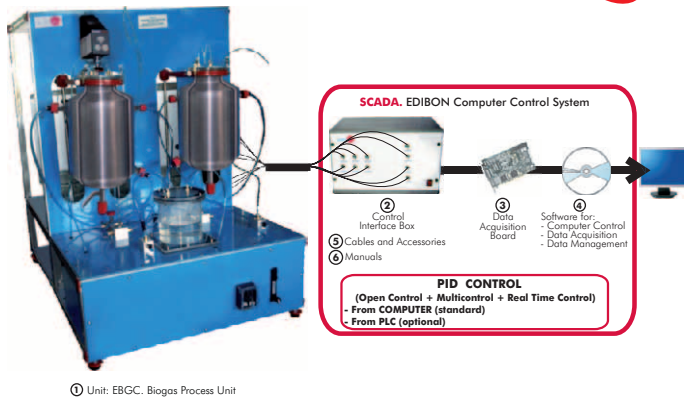
>Bio

EBDC. Computer Controlled **Biodiesel Process Unit** * **NEW**

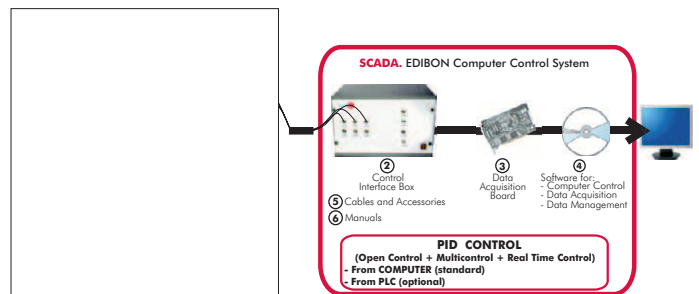
① Unit: EBDC. Biodiesel Process Unit

EBEC. Computer Controlled **Bioethanol Process Unit** * **NEW**

① Unit: EBEC. Bioethanol Process Unit

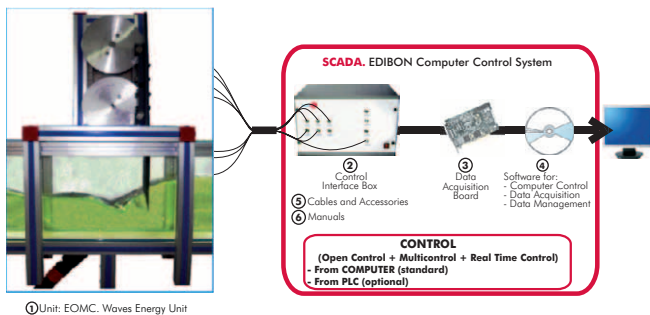
EBGC. Computer Controlled **Biogas Process Unit** * **NEW**

① Unit: EBGC. Biogas Process Unit

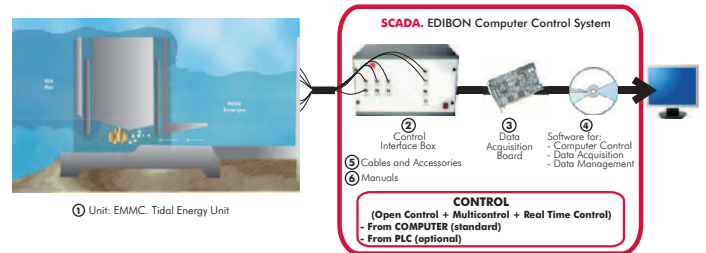
EBMC. Computer Controlled **Biomass Process Unit** * **NEW**

① Unit: EBMC. Biomass Process Unit

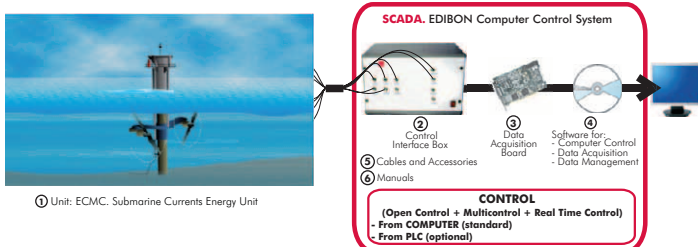
>Sea

EOMC. Computer Controlled **Waves Energy Unit** * **NEW**

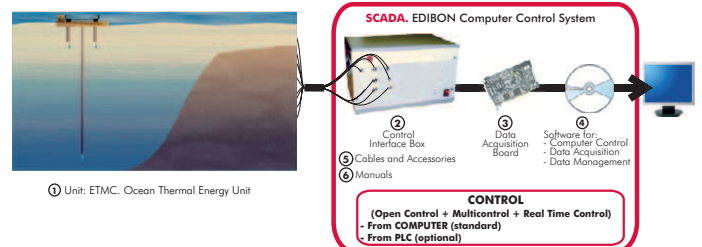
① Unit: EOMC. Waves Energy Unit

EMMC. Computer Controlled **Tidal Energy Unit** * **NEW**

① Unit: EMMC. Tidal Energy Unit

ECMC. Computer Controlled **Submarine Currents Energy Unit** * **NEW**

① Unit: ECMC. Submarine Currents Energy Unit

ETMC. Computer Controlled **Ocean Thermal Energy Unit** * **NEW**

① Unit: ETMC. Ocean Thermal Energy Unit

* Non computer controlled version available too.

5.3- Renewable (Alternative) Energies

www.edibon.com/products/index.php?area=energy&subarea=alternativeenergies&lang=en

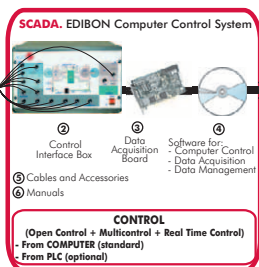
► Geothermal

EG5C. Computer Controlled Geothermal (low enthalpy) Energy Unit *

NEW



① Unit: EG5C. Geothermal (low enthalpy) Energy Unit

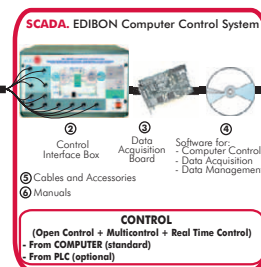


EG3C. Computer Controlled Geothermal (low enthalpy) Energy Unit *

NEW

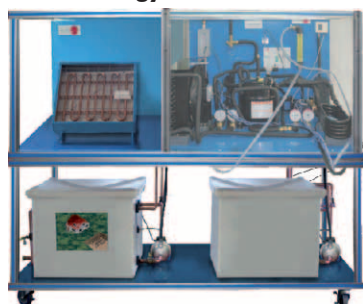


① Unit: EG3C. Geothermal (low enthalpy) Energy Unit

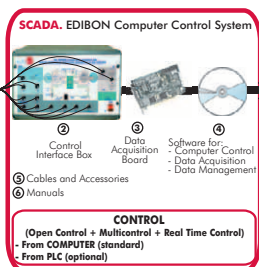


EG1C. Computer Controlled Geothermal (low enthalpy) Energy Unit *

NEW

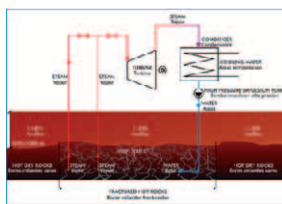


① Unit: EG1C. Geothermal (low enthalpy) Energy Unit

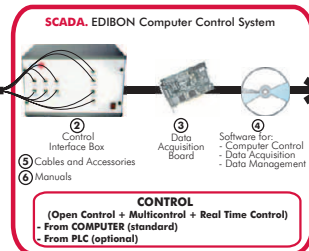


EG6C. Computer Controlled Geothermal (high enthalpy) Energy Unit *

NEW



① Unit: EG6C. Geothermal (high enthalpy) Energy Unit

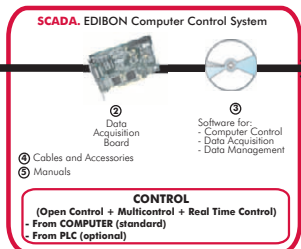


► Hidro

SCE. Computer Controlled Generating Stations Control and Regulation Simulator



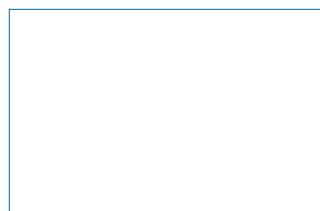
① Unit: SCE. Generating Stations Control and Regulation Simulator



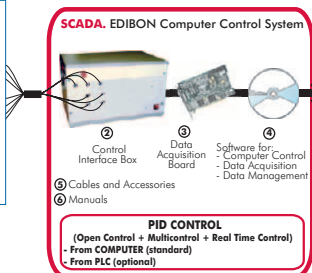
► Organic

TORC. Computer Controlled Organic Rankine Cycle Unit

NEW



① Unit: TORC. Organic Rankine Cycle Unit



Other available Units:

NEW

-EFTEC. Computer Controlled Turbine Electric Hub Troubleshooting Learning System

-EFTNC. Computer Controlled Turbine Nacelle Troubleshooting Learning System

5.4- Relays Units

www.edibon.com/products/index.php?area=energy&subarea=relaysunits&lang=en

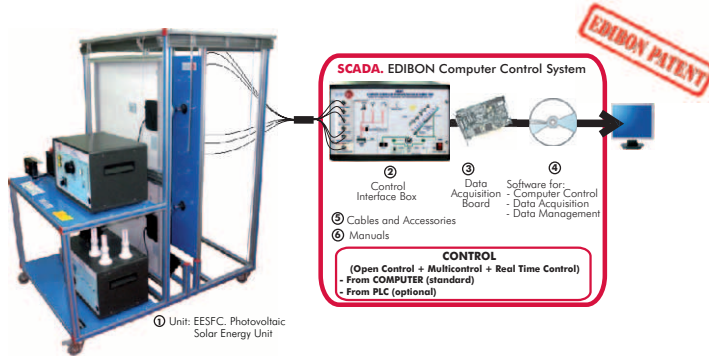
Available Unit:

-ERP. Protection Relay Test (see page 25)

* Non computer controlled version available too.

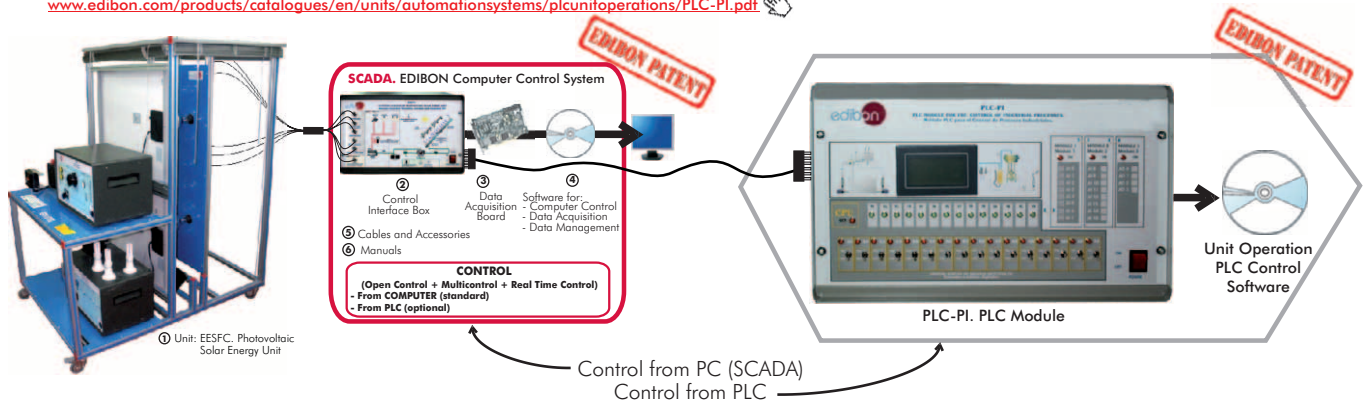
Energy control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

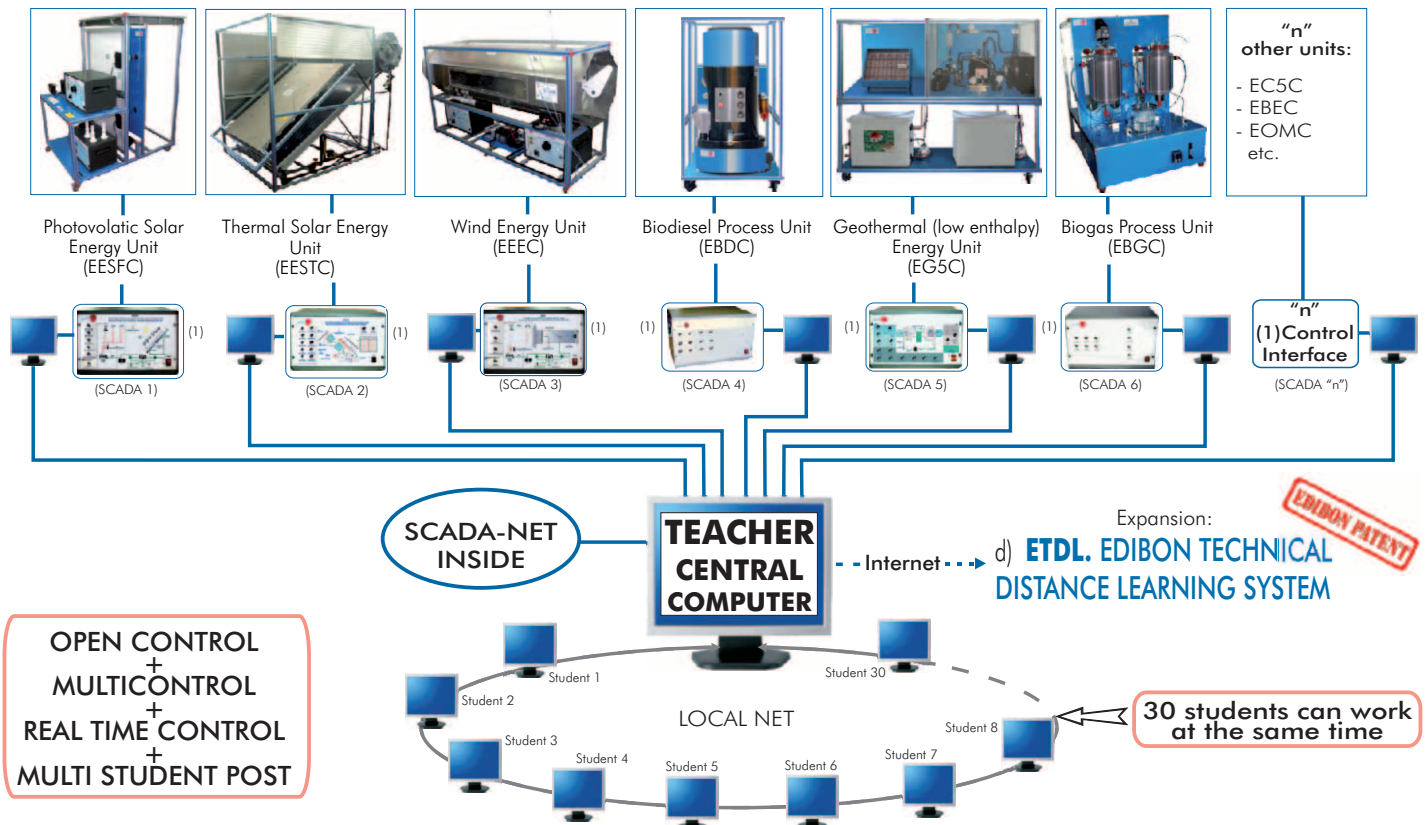


Units that can use Control from PC and PLC in this area:

EESFC, EF5C, EESTC, MINI-EESTC, ET5C, EEEEC, MINI-EEEC, EC5C, EC6C, EA5C, EBDC, EBEC, EBGC, EBMC, EOMC, EMMC, ECMC, ETMC, EG5C, EG3C, EG1C, EG6C, SCE, TORC, EFTEC, EFTNC.

c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/energy/esn-alternativeenergies/ESN-ALTERNATIVE_ENERGIES.pdf

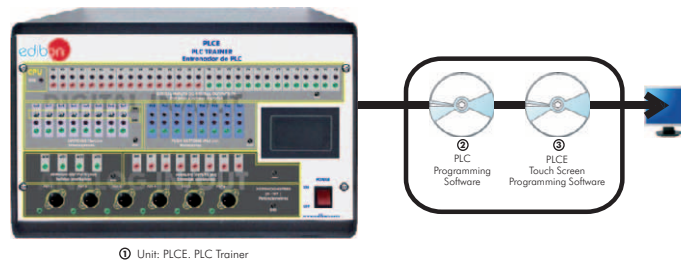


Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC 's) or ESN-PLC (only PLC 's) or ESN-PCPLC (PC 's + PLC 's).

6.1- Automation (PLC Process Emulation)

www.edibon.com/products/index.php?area=automationsystems&subarea=plcprocessemulation&lang=en

PLCE. **PLC Trainer**



PLC Process Emulators for working with PLCE: **NEW**

► **Traffic and Parking**



PLCE-CST.
Traffic Signal Control



PLCE-AV.
Car Parking



PLCE-AG2Z.
Two Zones Parking Garage

► **Small Industrial Machines**



PLCE-CA.
Elevator Control



PLCE-CLA.
Automatic Washing Machine Control



PLCE-MB.
Drinks Machine



PLCE-MBC.
Hot Drinks Machine



PLCE-CB.
Pump Control



PLCE-MA.
Embossing Machine

► **Small Industrial Systems**



PLCE-ST.
Drilling System



PLCE-SBAR.
Dirty-Water Pump System



PLCE-SBP.
Pump System (Pressure)



PLCE-SL.
Cleaning System



PLCE-SALL.
Automatic Filling System



PLCE-SBT.
Conveyor Belts System



PLCE-SCCT.
Conveyor Charging System



PLCE-SCA.
Canalization System



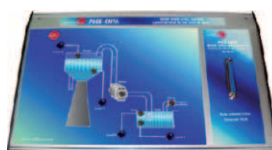
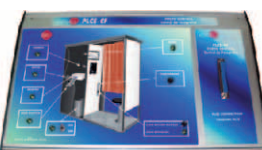
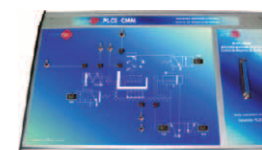
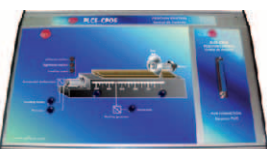
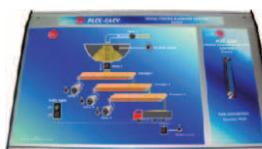
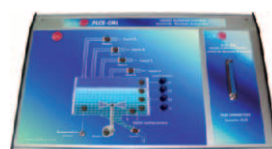
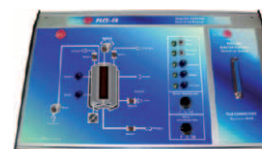
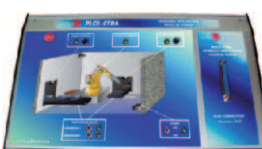
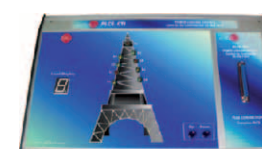
PLCE-SDT.
Pipe Bending System



PLCE-PAE.
Automatic Stamping Press

PLCE. **PLC Trainer**

PLC Process Emulators for working with PLCE:

► **Big Industrial Systems**PLCE-PLT.
Filling Process of TanksPLCE-SCC.
Collecting Belt ConveyorPLCE-MCC.
Mails Allocation MachinePLCE-RAC.
Compressed Air NetworkPLCE-TC.
Coal TreatmentPLCE-PELE.
Packing Line and Bottling Plant► **Simple Control Applications**PLCE-CA2P.
Two-Doors Access ControlPLCE-CI.
Fire ControlPLCE-CP.
Proximity Control (security)PLCE-CCO.
Sluice Gate ControlPLCE-CNC.
Level and Flow ControlPLCE-CNTA.
Water Tower Level ControlPLCE-CF.
Photo ControlPLCE-CMM.
Molding Machine ControlPLCE-CPOS.
Position ControlPLCE-CS.
Silo ControlPLCE-CACV.
Vehicle Feeding & Loading Control► **Industrial Control Applications**PLCE-ACC.
Feeding and Loading ControlPLCE-CML.
Liquids Blending ControlPLCE-CME.
Mixer ControlPLCE-CR.
Reactor ControlPLCE-CCP.
Count and Position ControlPLCE-CL.
Rolling Mill ControlPLCE-CTRA.
WorkCell ApplicationPLCE-CTI.
Tower Lighting Control

PLCE. **PLC Trainer**

PLC Process Emulators for working with PLCE:

► **Thermal Applications**



PLCE-AC.
Buffer Storage



PLCE-RT.
Temperature Regulation



PLCE-CSC.
Heating System Control



PLCE-CSV.
Ventilation System Control

► **Electrical Machines Control (Motors)**



PLCE-M.
Motor Control



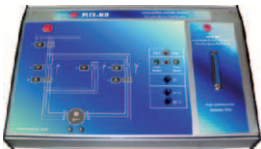
PLCE-MPP.
Stepper Motor Control



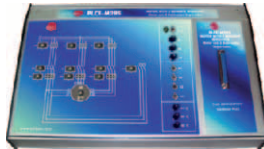
PLCE-MET.
Star-Delta Connection



PLCE-MCETI.
Reversing Star-Delta
Connection



PLCE-MD.
Dahlander Motor Circuit



PLCE-M2BS.
Motor with 2 Separate
Windings



PLCE-MAC.
Starting a Wound-Rotor
Motor

► **Alarms/Current**



PLCE-AN.
Annunciator



PLCE-SLU.
Running Lights



PLCE-CPR.
Reactive Current Compensation

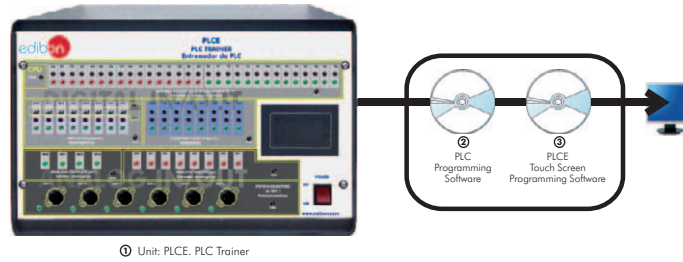


PLCE-MCI.
Reversing Contactor

6.2- Automation (PLC Small Scale Real Applications)

www.edibon.com/products/index.php?area=automationsystems&subarea=plcrealapplications&lang=en

PLCE. **PLC Trainer**



① Unit: PLCE. PLC Trainer

PLC Small Scale Real Applications for working with PLCE:

NEW

► Sensors



PLCE-BS1.
Vibration and/or Deformation
Test Module



PLCE-BS2.
Temperature Test Module



PLCE-BS3.
Pressure Test Module



PLCE-BS4.
Flow Test Module



PLCE-BS5.
Ovens Test Module



PLCE-BS6.
Liquid Level Test Module



PLCE-BS7.
Tachometers Test Module



PLCE-BS8.
Proximity Test Module



PLCE-BS9.
Pneumatic Test Module



PLCE-BS10.
Light Test Module

Other available Applications:

NEW

- Conveyors
- Elevators

6.3- Automation (Industrial PLC Applications)

www.edibon.com/products/index.php?area=automationsystems&subarea=plcindustrial&lang=en

PLC-IN. **PLC Industrial Control System**

NEW



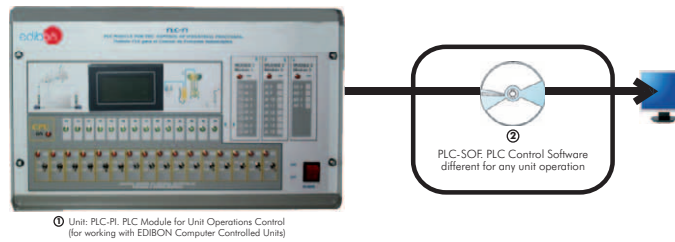
Available Industrial PLC Applications:

- PLC-IN-1. **Motor Control Application**
- PLC-IN-2. **Servo Motor Control Application**
- Etc.

6.4- Automation (PLC Unit Operations Control)

www.edibon.com/products/index.php?area=automationsystems&subarea=plcunitoperations&lang=en

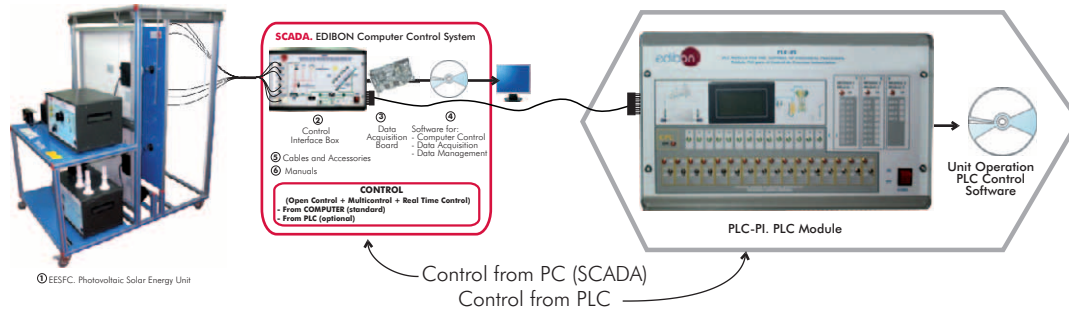
PLC-PI. **PLC Module for Unit Operations Control** (for working with EDIBON Computer Controlled Units)



PLC Unit Operations Applications:

Energy Area:

Example



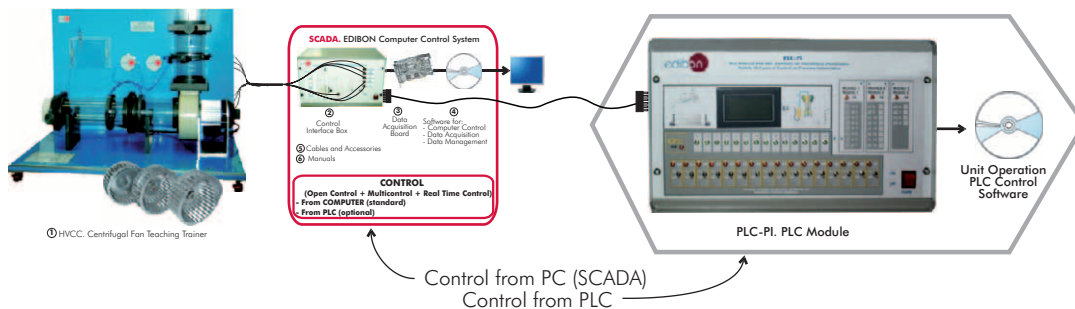
List of Units that can use PLC-PI:

EESFC.	Computer Controlled Photovoltaic Solar Energy Unit	EBEC.	Computer Controlled Bioethanol Process Unit
EF5C.	Computer Controlled Photovoltaic Solar Energy Concentrator Unit	EBGC.	Computer Controlled Biogas Process Unit
EESTC.	Computer Controlled Thermal Solar Energy Unit	EBMC.	Computer Controlled Biomass Process Unit
MINI-EESTC.	Computer Controlled Thermal Solar Energy Basic Unit	EOMC.	Computer Controlled Waves Energy Unit
ET5C.	Computer Controlled Thermal Solar Energy Concentrator Unit	EMMC.	Computer Controlled Tidal Energy Unit
EEEC.	Computer Controlled Wind Energy Unit	ECMC.	Computer Controlled Submarine Currents Energy Unit
MINI-EEEC.	Computer Controlled Wind Energy Basic Unit	ETMC.	Computer Controlled Ocean Thermal Energy Unit
EC5C.	Computer Controlled PEM Fuel Cell Unit (22 Watt)	EG5C.	Computer Controlled Geothermal (low enthalpy) Energy Unit
EC6C.	Computer Controlled PEM Fuel Cell Advanced Unit (1.5 kW)	EG6C.	Computer Controlled Geothermal (high enthalpy) Energy Unit
EA5C.	Computer Controlled Alkaline Fuel Cell Unit	SCE.	Computer Controlled Generating Stations Control and Regulation Simulator
EBDC.	Computer Controlled Biodiesel Process Unit	TORC.	Computer Controlled Organic Rankine Cycle Unit

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

Fluid Mechanics & Aerodynamics Area:

Example



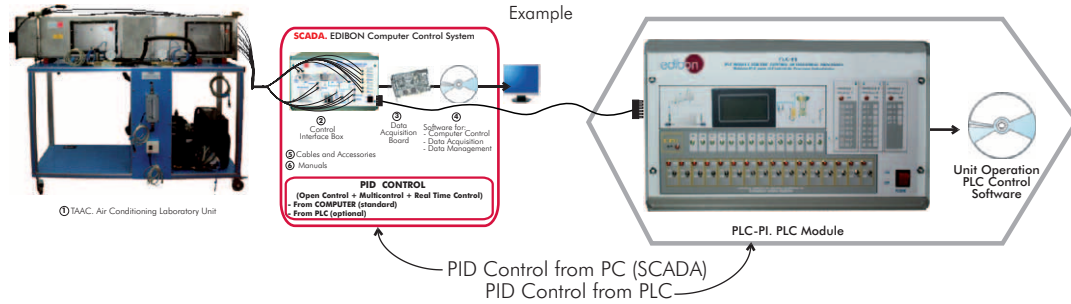
List of Units that can use PLC-PI:

AFTC.	Computer Controlled Fluid Friction in Pipes, with Hydraulics Bench (FME00)	HVCC.	Computer Controlled Centrifugal Fan Teaching Trainer
AMTC.	Computer Controlled Pipe Network Unit, with Hydraulics Bench (FME00)	HVAC.	Computer Controlled Axial Fan Teaching Trainer
EGAC.	Computer Controlled Water Hammer Unit	TFRC.	Computer Controlled Radial Flow Turbine
CFC.	Computer Controlled Flow Channels (section: 80 x 300 mm)	TPC.	Computer Controlled Pelton Turbine
CFGC.	Computer Controlled Flow Channels (section: 300 x 450 mm)	TFAC.	Computer Controlled Axial Flow Turbine
PBOC.	Computer Controlled Multipump Testing Bench	TFC.	Computer Controlled Francis Turbine
PBCC.	Computer Controlled Centrifugal Pump Bench	TKC.	Computer Controlled Kaplan Turbine
PBSPC.	Computer Controlled Series/Parallel Pumps Bench	HTRC.	Computer Controlled Experimental Reaction Turbine
PBEC.	Computer Controlled Gear Pump Bench	HTIC.	Computer Controlled Experimental Impulse Turbine
PBAC.	Computer Controlled Axial Pump Bench	TA50/250C.	Computer Controlled Aerodynamic Tunnel, 50 x 250 mm
PBRC.	Computer Controlled Piston Pump Bench		

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

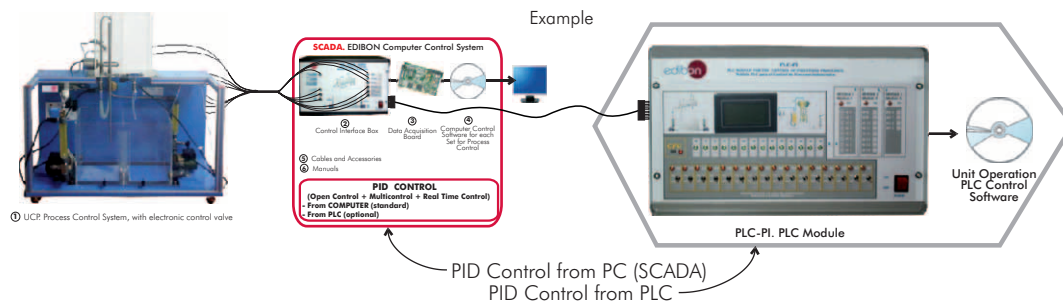
PLC-PI. **PLC Module for Unit Operations Control** (for working with EDIBON Computer Controlled Units)

PLC Unit Operations Applications:

Thermodynamics & Thermotechnics Area:**List of Units that can use PLC-PI:**

TCRC.	Computer Controlled Refrigeration Cycle Demonstration Unit	THALAC.	Computer Controlled Air Conditioning Unit (water condenser and air evaporator)
TRAC.	Computer Controlled Absorption Refrigeration Unit	THA2AC.	Computer Controlled Air Conditioning Unit (two condensers and air evaporator)
THIBAR22C.	Computer Controlled Heat Pump + Air Conditioning + Refrigeration Unit, with Cycle Inversion Valve (two condensers and two evaporators)	TTEC.	Computer Controlled Bench Top Cooling Tower
THAR22C.	Computer Controlled Refrigeration and Air Conditioning Unit (two condensers and two evaporators)	TICC.	Computer Controlled Heat Exchangers Training System
THAR2LC.	Computer Controlled Refrigeration and Air Conditioning Unit (two condensers and water evaporator)	TSTCC.	Computer Controlled Heat Transfer Series
THARLC.	Computer Controlled Refrigeration and Air Conditioning Unit (water condenser and water evaporator)	TRTC.	Computer Controlled Thermal Radiation and Light Radiation Unit
THARA2C.	Computer Controlled Refrigeration and Air Conditioning Unit (air condenser and two evaporators)	TTLFC.	Computer Controlled Fluidisation and Fluid Bed Heat Transfer Unit
THARLLC.	Computer Controlled Refrigeration and Air Conditioning Unit (water condenser and two evaporators)	TCEC.	Computer Controlled Boiling Heat Transfer Unit
THARALC.	Computer Controlled Refrigeration and Air Conditioning Unit (air condenser and water evaporator)	TCCC.	Computer Controlled Heat Conduction Unit
THARA2C/1.	Computer Controlled Capacity Control Methods in Refrigeration	TCLGC.	Computer Controlled Thermal Conductivity of Liquids and Gases Unit
THARA2C/2.	Computer Controlled Double Chamber Refrigerator Module	TCPGC.	Computer Controlled Film and Dropwise Condensation Unit
THALAC/1.	Computer Controlled Multiple Compressor Refrigeration Control	TCLFC.	Computer Controlled Free and Forced Convection Heat Transfer Unit
TCPISC.	Computer Controlled Cooling Plant with Ice Store	TIFCC.	Computer Controlled Cross Flow Heat Exchanger
TPVC.	Computer Controlled Vortex Tube Refrigerator Unit	TFLVC.	Computer Controlled Laminar/Viscous Flow Heat Transfer Unit
TPCC.	Computer Controlled Contact Plate Freezer	TIVAC.	Computer Controlled Steam to Water Heat Exchanger
TEVC.	Computer Controlled Ventilation Trainer	TFEC.	Computer Controlled Flow Boiling Demonstration Unit
EACC.	Computer Controlled Hot Water Production and Heating Teaching Unit	TRLC.	Computer Controlled Recycle Loops Unit
THB22C.	Computer Controlled Heat Pump Unit (two condensers and two evaporators)	TSPC.	Computer Controlled Saturation Pressure Unit
THB2LC.	Computer Controlled Heat Pump Unit (two condensers and water evaporator)	TFUC.	Computer Controlled Continuous and Batch Filtration Unit
THBL2C.	Computer Controlled Heat Pump Unit (water condenser and two evaporators)	TEPGC.	Computer Controlled Expansion Processes of a Perfect Gas Unit
THBA2C.	Computer Controlled Heat Pump Unit (air condenser and two evaporators)	TFTC.	Computer Controlled Nozzle Performance Test Unit
THBLLC.	Computer Controlled Heat Pump Unit (water condenser and water evaporator)	TPTVC.	Computer Controlled Steam Power Plant
THBALC.	Computer Controlled Heat Pump Unit (air condenser and water evaporator)	TCECSC.	Computer Controlled Separating & Throttling Calorimeter
THB2AC.	Computer Controlled Heat Pump Unit (two condensers and air evaporator)	TVCC.	Computer Controlled Combustion Laboratory Unit
THBLAC.	Computer Controlled Heat Pump Unit (water condenser and air evaporator)	TVPLC.	Computer Controlled Flame Propagation and Stability Unit
THBAAC.	Computer Controlled Heat Pump Unit (air condenser and air evaporator)	TBMC3.	Computer Controlled Test Bench for Single-Cylinder Engines, 2.2 kW
TBTC.	Computer Controlled Thermo-Electric Heat Pump	TBMC8.	Computer Controlled Test Bench for Single-Cylinder Engines, 7.5 kW
TAAC.	Computer Controlled Air Conditioning Laboratory Unit	TBMC12.	Computer Controlled Test Bench for Single-Cylinder and Two-Cylinders Engines, 11 kW
TARC.	Computer Controlled Recirculating Air Conditioning Unit	TBMC75.	Computer Controlled Test Bench for Four-Cylinders Engines, 75 kW
TAAUC.	Computer Controlled Automobile Air Conditioning Trainer	TBMC-CG.	Computer Controlled Exhaust Gas Calorimeter
THAAAC.	Computer Controlled Air Conditioning Unit (air condenser and air evaporator)	TDEGC.	Computer Controlled Diesel Engine Electricity Generator
		TGDEC.	Computer Controlled Two-Shaft Gas Turbine
		TGDEPC.	Computer Controlled Two-Shaft Gas Turbine/Jet Engine
		TGFAC.	Computer Controlled Axial Flow Gas Turbine/Jet Engine
		TTVC.	Computer Controlled Steam Turbine
		HTVC.	Computer Controlled Solar/Heat Source Vapour Turbine

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

Process Control Area:**List of Units that can use PLC-PI:**

UCP.	Computer Controlled Process Control System, with electronic control valve	CPIC-T.	Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Temperature)
UCPCN.	Computer Controlled Process Control System, with pneumatic control valve	CPIC-N.	Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Level)
UCPCV.	Computer Controlled Process Control System, with speed controller	CPIC-P.	Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Pressure)
UCP-P.	Computer Controlled Process Control Unit for the Study of Pressure (Air)		
CPIC.	Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (Flow, Temperature, Level and Pressure)		
CPIC-C.	Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Flow)		

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

6.4- Automation (PLC Unit Operations Control)

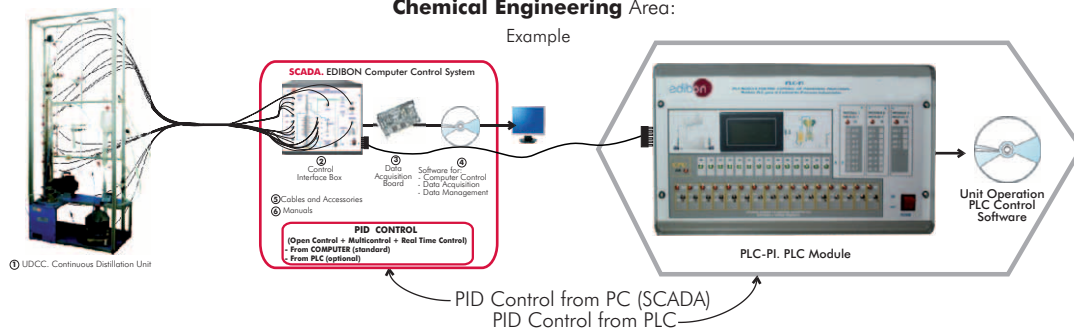
www.edibon.com/products/index.php?area=automationsystems&subarea=plcunitoperations&lang=en

PLC-PI. **PLC Module for Unit Operations Control** (for working with EDIBON Computer Controlled Units)

PLC Unit Operations Applications:

Chemical Engineering Area:

Example



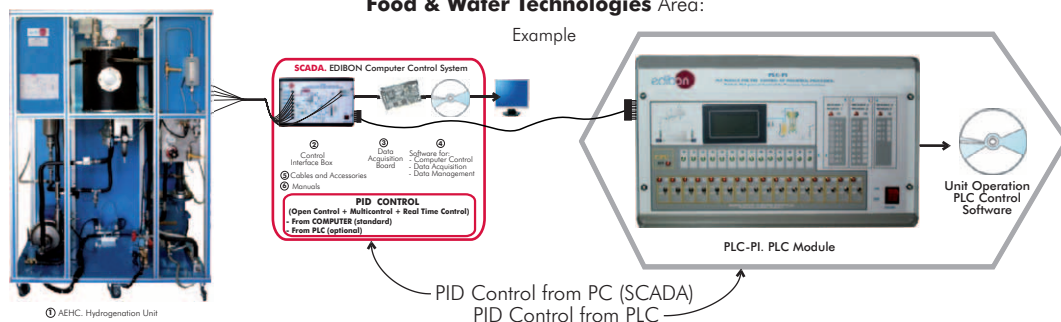
List of Units that can use PLC-PI:

CAGC.	Computer Controlled Gas Absorption Column	EPDC.	Computer Controlled Falling Film Evaporator.
UELL.	Computer Controlled Liquid-Liquid Extraction Unit	EDPDC.	Computer Controlled Double Effect Falling Film Evaporator
UDCC.	Computer Controlled Continuous Distillation Unit	QRQC.	Computer Controlled Chemical Reactors Training System
UDDC.	Computer Controlled Batch Distillation Unit	QRC.	Computer Controlled Chemical Reactors Trainer
UESLC.	Computer Controlled Solid-Liquid Extraction Unit	QRCC.	Computer Controlled Catalytic Reactors
EPAC.	Computer Controlled Rising Film Evaporator	LFFC.	Computer Controlled Fixed and Fluidised Bed Unit
EDPAC.	Computer Controlled Double Effect Rising Film Evaporator	QEDC.	Computer Controlled Batch Solvent Extraction and Desolventising Unit
CAPC.	Computer Controlled Wetted Wall Gas Absorption Column	TFUC.	Computer Controlled Continuous and Batch Filtration Unit
QDTLC.	Computer Controlled Liquid Mass Transfer and Diffusion Coefficient Unit	EFLPC.	Computer Controlled Deep Bed Filter Unit
QDTGC.	Computer Controlled Gaseous Mass Transfer and Diffusion Coefficient Unit	SBANC.	Computer Controlled Tray Drier
QCCC.	Computer Controlled Cracking Column	SSPC.	Computer Controlled Spray Drier
QUCC.	Computer Controlled Crystallisation Unit		

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

Food & Water Technologies Area:

Example



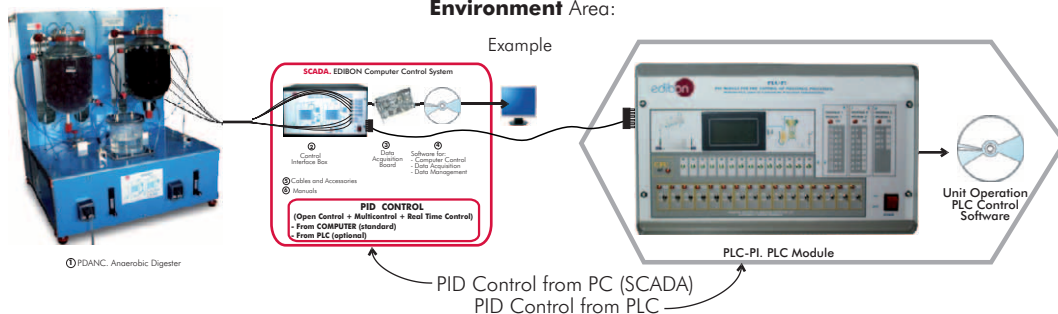
List of Units that can use PLC-PI:

PADC.	Computer Controlled Teaching Autonomous Pasteurization Unit	TPCC.	Computer Controlled Contact Plate Freezer
PASC.	Computer Controlled Laboratory Pasteuriser	DSNC.	Computer Controlled Teaching Cream Separator
AEHC.	Computer Controlled Hydrogenation Unit	EMANC.	Computer Controlled Butter Maker Teaching Unit
AEDC.	Computer Controlled Deodorising Unit	AUHTC.	Computer Controlled UHT Unit
TFDC.	Computer Controlled Teaching Frigorific Tank	CCDC.	Computer Controlled Teaching Curdled Tank
EDLC.	Computer Controlled Teaching Machine for Putting in Plastic Packing Liquids	PVQC.	Computer Controlled Teaching Cheese Vertical Press
EDSC.	Computer Controlled Teaching Machine for Putting into a Container Solids	IYDC.	Computer Controlled Teaching Yogurt Incubator
ROUC.	Computer Controlled Reverse Osmosis/Ultrafiltration Unit	RDC.	Computer Controlled Teaching Cottage Cheese Maker
VPMC.	Computer Controlled Multipurpose Processing Vessel	FQDC.	Computer Controlled Teaching Cheese Melter
SBANC.	Computer Controlled Tray Drier	PACC.	Computer Controlled Continuous Cycle Oil Production Plant
SSPC.	Computer Controlled Spray Drier		

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

Environment Area:

Example



List of Units that can use PLC-PI:

ESH.	Computer Controlled Hydrologic Systems, Rain Simulator and Irrigation Systems Unit	PDAC.	Computer Controlled Aerobic Digester
PAHSC.	Computer Controlled Soil Moisture Suction Sand Unit	PDANC.	Computer Controlled Anaerobic Digester
PDFDC.	Computer Controlled Drainage and Seepage Tank	PEFC.	Computer Controlled Flocculation Test Unit
PDSC.	Computer Controlled Sedimentation Tank	PEAIC.	Computer Controlled Aeration Unit
EFLPC.	Computer Controlled Deep Bed Filter Unit	ROUC.	Computer Controlled Reverse Osmosis/Ultrafiltration Unit

- All these units can use PID control from PLC by using PLC-PI EDIBON Unit and the software related with any unit, and totally designed by EDIBON.

6.5- Automation (Regulation and Control)

www.edibon.com/products/index.php?area=automationsystems&subarea=automationregulation&lang=en

Available Unit:

-RYC. Computer Controlled **Teaching Unit for the Study of Regulation and Control** (see page 10)

6.6- Automation (Control)

www.edibon.com/products/index.php?area=automationsystems&subarea=automationcontrol&lang=en

CECI. **Industrial Controllers Trainer**



CRCI. **Industrial Controllers Networking**



CEAB. **Trainer for Field Bus Application**



CEAC. **Controller Tuning Trainer**



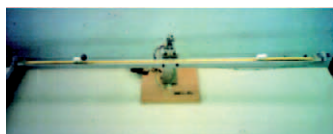
EPID-T. **Industrial Regulation Trainer, PID type (Temperature)**



6.7- Systems

www.edibon.com/products/index.php?area=automationsystems&subarea=systems&lang=en

SBB. **Ball and Beam System**



Other available Units:

-CPVM. **DC Motor Position and Speed Control**

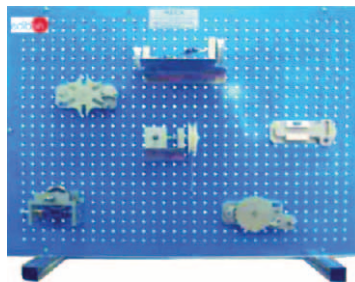
-SCE. **Computer Controlled Generating Stations Control and Regulation Simulator** (see page 31)

7.1- Basic Mechanics

www.edibon.com/products/index.php?area=mechanicsmaterials&subarea=basic&lang=en

LIMEBA. **Basic Mechanics Integrated Laboratory:**

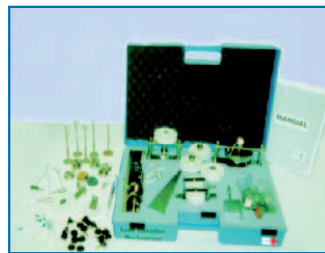
Base Panel



Modules



MECA1.
Statics Experiments



MECA2.
Load Elevation Mechanisms Experiments



MECA3.
Transmissions Experiments



MECA4.
Dynamics Experiments



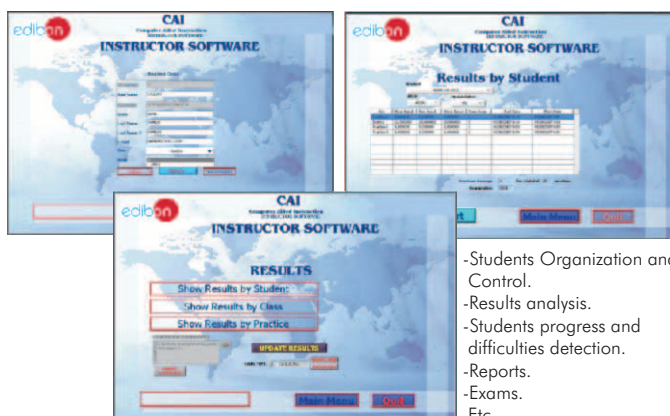
MECA5.
Friction Experiments



MECA6.
Special Mechanisms Experiments

CAI. Computer Aided Instruction Software System

Instructor Software



- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.

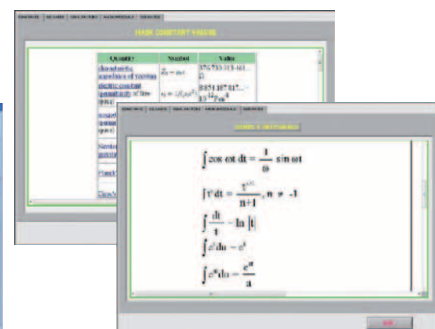
Student/Module Software



- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

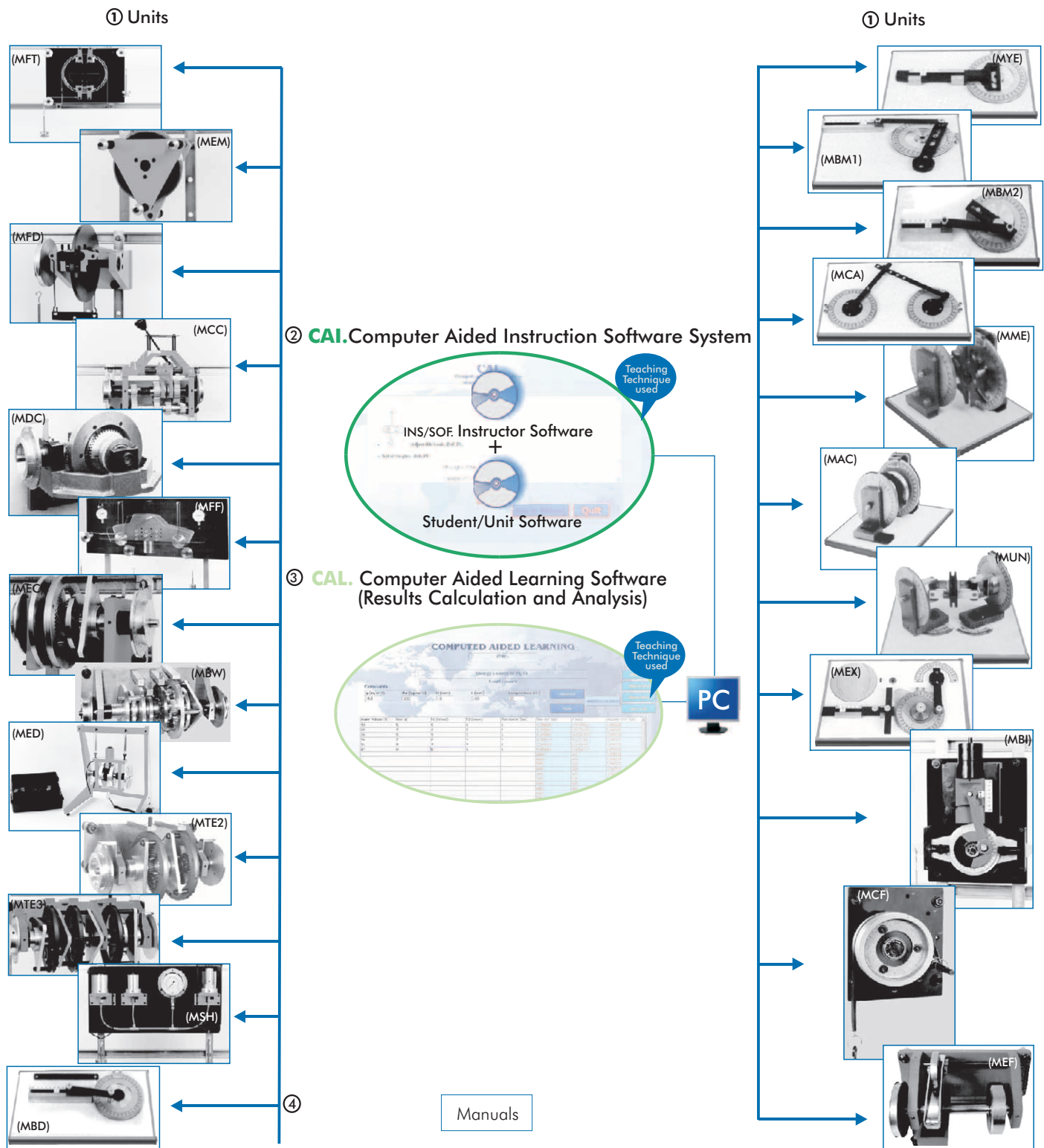
Available Student/Module Software Packages:

- MECA1/SOF. Statics Experiments.
- MECA2/SOF. Load Elevation Mechanisms Experiments.
- MECA3/SOF. Transmissions Experiments.
- MECA4/SOF. Dynamics Experiments.
- MECA5/SOF. Friction Experiments.
- MECA6/SOF. Special Mechanisms Experiments.

LIMEBA. **Basic Mechanics Integrated Laboratory:****LIMEBA/CAL. Computer Aided Learning Software (Results Calculation and Analysis)**

Available Software Packages:

- MECA1/CAL. Statics Experiments.
- MECA2/CAL. Load Elevation Mechanisms Experiments.
- MECA3/CAL. Transmissions Experiments.
- MECA4/CAL. Dynamics Experiments.
- MECA5/CAL. Friction Experiments.
- MECA6/CAL. Special Mechanisms Experiments.



7.2.1.- Automotive Mechanisms

- MFT. Drum Brake System.
- MEM. Plate Clutch.
- MFD. Disk Brake.
- MCC. Gearbox.
- MDC. Differential-Crownwheel and Pinion.
- MFF. Braking and Accelerating Forces Unit.
- MGE. Gear Generation Unit.

7.2.2.- Gears and Transmissions

- MEC. Overdrive Unit.
- MEE. Geared Lifting Machine.

Available Units

- MBW. Borg-Warner Automatic Transmission.
- MED. Static & Dynamic Balancing Unit.
- MTE1. Epicyclic Gear Unit (1 element).
- MTE2. Epicyclic Gear Unit (2 elements).
- MTE3. Epicyclic Gear Unit (3 elements).

7.2.3.- Mechanisms

- MSH. Simple Hydraulic System.
- MBD. Slider Crank Mechanism.
- MYE. Scotch Yoke Mechanism.
- MBM1. Slotted Link Mechanism.
- MBM2. Whitworth Quick Return Mechanism.

- MCA. Chain Mechanism.
- MME. Geneva Stop Mechanism.
- MAC. Coupling Mechanism.
- MUN. Hook's Joint Mechanism.
- MEX. Cam and Follower Mechanism.
- MUV. Constant Velocity Joint Mechanism.
- MBI. Crank Mechanism.

7.2.4.- Lubrication. Wear. Friction

- MCF. Belt Friction Unit.
- MEF. Friction Study Unit.

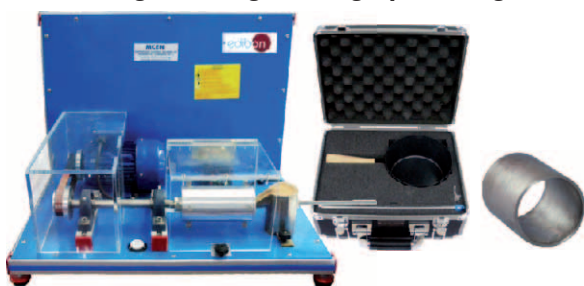
MCAM. Bell Casting Basic Training Set



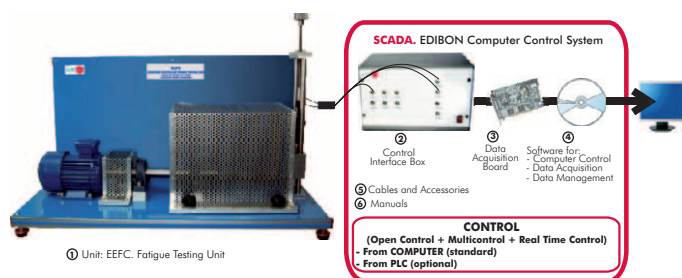
MCLA. Foundry Building-up Training Set 1



MCEN. Centrifugal Casting Building-up Training Set 2



EEFC. Computer Controlled Fatigue Testing Unit *



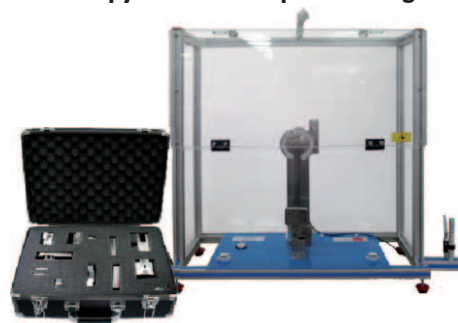
EEU/20KN. Universal Material Testing Unit



EEFCR. Creep Testing Unit



EEICI. Charpy and Izod Impact Testing Unit



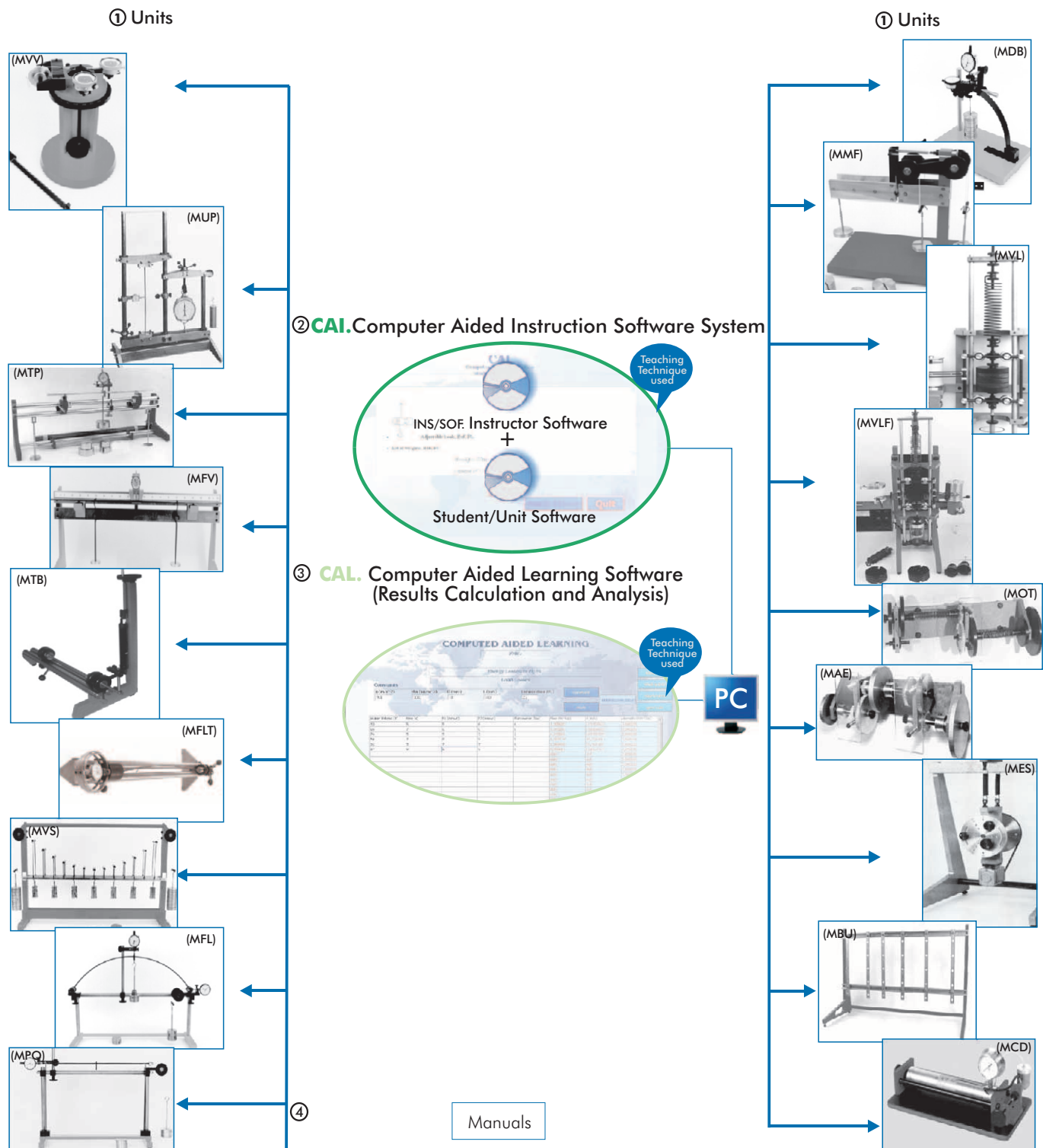
EEDB. Brinell Hardness Testing Unit



* Non computer controlled version available.

7.5- Strength of Materials

www.edibon.com/products/index.php?area=mechanicsmaterials&subarea=strengthmaterials&lang=en



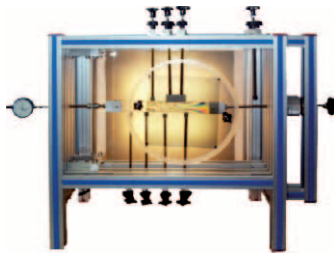
Available Units

-MVV. Unsymmetrical Cantilever Unit.
 -MUP. Loading of Struts Unit.
 -MTP. Twist & Bend Machine.
 -MFV. Beam Deflection Unit.
 -MTB. Torsion Unit.
 -MFLT. Strut Unit.
 -MVS. Suspension Bridge Unit.
 -MFL. Two Pinned Arch Unit.
 -MPO. Portal Frame Unit.
 -MDB. Deflection of Curved Bars Unit.

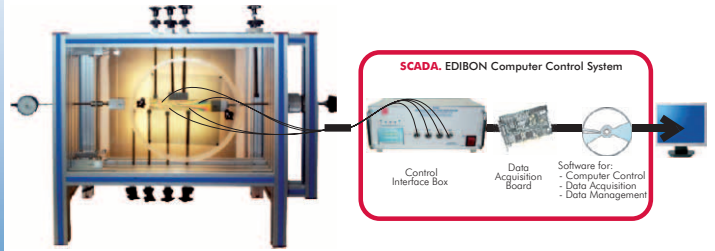
-MMF. Shear Force and Bending Momentum Unit.
 -MVL. Free Vibration Unit.
 -MVLF. Free & Forced Vibration Unit.
 -MOT. Torsional Oscillations Unit.
 -MAE. Acceleration of Geared Systems Unit.
 -MES. Simple Balancing Unit.
 -MBU. Universal Bench Mounted Frame.
 -MCG. Strain Gauge Calibration Unit.
 -MCD. Thin Cylinder Unit.

Photoelasticity Units:

EFO. Photoelasticity Unit

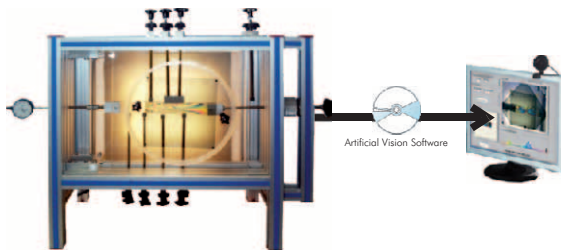


EFOC. Photoelasticity Unit with Strain Gauges Measurement System (quality and quantity measurement in some points)



EFOV. Photoelasticity Unit with Artificial Vision System (quality and quantity measurement in any point)

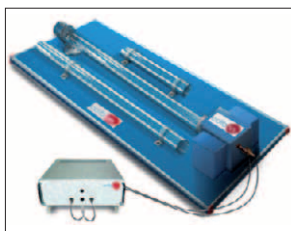
NEW



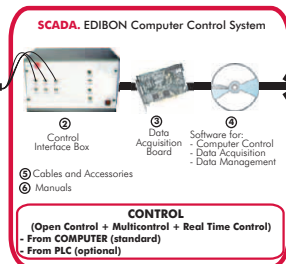
7.6- Basic Cut Away Mechanics 7.7- General Cut Away Mechanics

7.8- Building

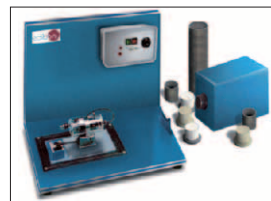
TIAC. Computer Controlled Acoustic Impedance Tube/Acoustic Insulation Test Unit



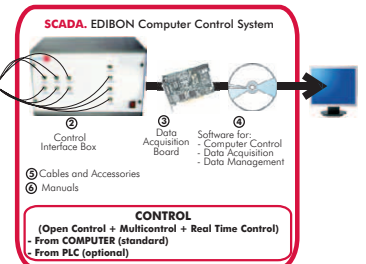
① Unit: TIAC. Acoustic Impedance Tube/Acoustic Insulation Test Unit



TDRC. Computer Controlled Noise Control Demonstration Unit



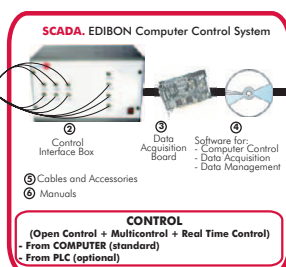
① Unit: TDRC. Noise Control Demonstration Unit



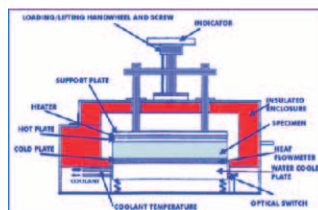
TEVC. Computer Controlled Ventilation Trainer



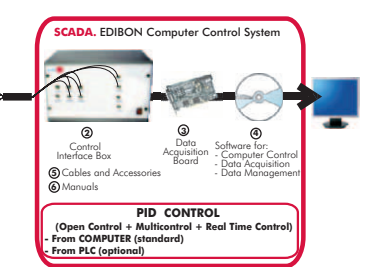
① Unit: TEVC. Ventilation Trainer



TCMC. Computer Controlled Thermal Conductivity of Building and Insulating Materials Unit



① Unit: TCMC. Thermal Conductivity of Building and Insulating Materials Unit



8.1- Fluid Mechanics (Basic)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=fluidmechanicsbasic&lang=en

LIFLUBA. Basic Fluids Mechanics Integrated Laboratory:

Base Service Units



FME00.
Hydraulics Bench



FME00/B.
Basic Hydraulics Feed System

> General concepts

Modules



FME01.
Impact of a Jet



FME02.
Flow over Weirs



FME04.
Orifice Discharge



FME14.
Free and Forced Vortices



FME08.
Hydrostatic Pressure



FME10.
Dead Weight Calibrator



FME11.
Metacentric Height



FME26.
Depression Measurement
System (vacuum gauge)



FME32.
Pitot Static Tube
Module

> Laws



FME03.
Bernoulli's Theorem
Demonstration



FME22.
Venturi, Bernoulli and
Cavitation Unit



FME06.
Osborne-Reynolds'
Demonstration

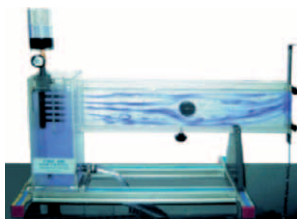


FME31.
Horizontal Osborne-
Reynolds Demonstration



FME24.
Unit for the study of
Porous Beds in Venturi
Tubes (Darcy's Equation)

> Demonstration



FME09.
Flow Visualization in
Channels



FME20.
Laminar Flow
Demonstration



FME30.
Vortex Flow Meter



FME15.
Water Hammer



FME19.
Cavitation Phenomenon
Demonstration



FME25.
Flow Channel, 1 m. length



FME18.
Flow Meter Demonstration

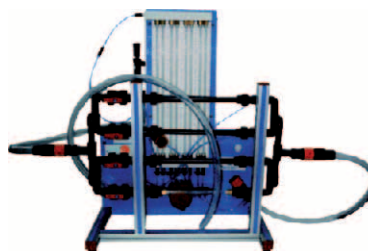


FME17.
Orifice and Free Jet Flow

LIFLUBA. Basic Fluids Mechanics Integrated Laboratory:

Modules

> Pipes

FME05.
Energy Losses in BendsFME07.
Energy Losses in PipesFME23.
Basic Pipe Network Unit

> Hydraulic Machines

FME12.
Series/Parallel PumpsFME13.
Centrifugal Pumps
CharacteristicsFME27.
Axial Flow TurbineFME16.
Pelton TurbineFME28.
Francis TurbineFME29.
Kaplan TurbineFME21.
Radial Flow Turbine

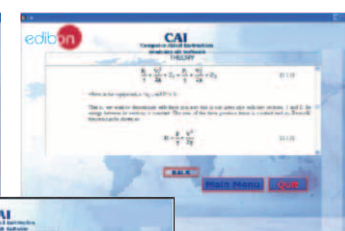
CAI. Computer Aided Instruction Software System

Instructor Software

Student/Module Software



- Students Organization and Control.
- Results analysis.
- Students progress and difficulties detection.
- Reports.
- Exams.
- Etc.



- Theory.
- Exercises.
- Guided Practices.
- Exams.
- Etc.

Available Student/Module Software Packages:

> General concepts

- FME01/SOF. Impact of a Jet.
- FME02/SOF. Flow over Weirs.
- FME04/SOF. Orifice Discharge.
- FME14/SOF. Free and Forced Vortices.
- FME08/SOF. Hydrostatic Pressure.
- FME10/SOF. Dead Weight Calibrator.
- FME11/SOF. Metacentric Height.
- FME26/SOF. Depression Measurement System (vacuum gauge).
- FME32/SOF. Pitot Static Tube Module. **NEW**

> Laws

- FME03/SOF. Bernoulli's Theorem Demonstration.
- FME22/SOF. Venturi, Bernoulli and Cavitation Unit.

- FME06/SOF. Osborne-Reynolds' Demonstration.
- FME31/SOF. Horizontal Osborne-Reynolds Demonstration. **NEW**
- FME24/SOF. Unit for the study of Porous Beds in Venturi Tubes (Darcy's Equation).

> Demonstration

- FME09/SOF. Flow Visualization in Channels.
- FME20/SOF. Laminar Flow Demonstration.
- FME30/SOF. Vortex Flow Meter. **NEW**
- FME15/SOF. Water Hammer.
- FME19/SOF. Cavitation Phenomenon Demonstration.
- FME25/SOF. Flow Channel, 1m. length.
- FME18/SOF. Flow Meter Demonstration.
- FME17/SOF. Orifice and Free Jet Flow.

> Pipes

- FME05/SOF. Energy Losses in Bends.
- FME07/SOF. Energy Losses in Pipes.
- FME23/SOF. Basic Pipe Network Unit.

> Hydraulic Machines

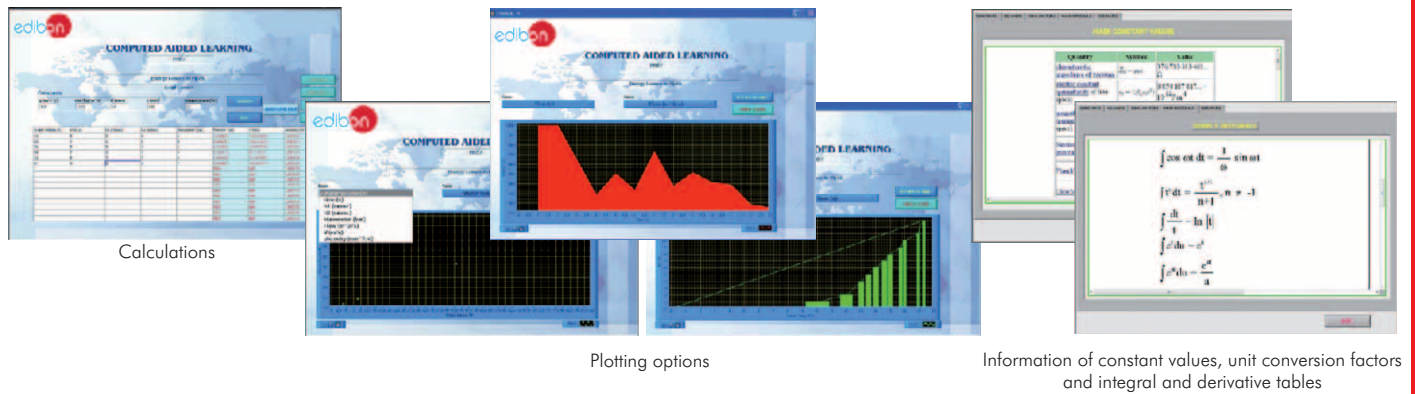
- FME12/SOF. Series/Parallel Pumps.
- FME13/SOF. Centrifugal Pumps Characteristics.
- FME27/SOF. Axial Flow Turbine.
- FME16/SOF. Pelton Turbine.
- FME28/SOF. Francis Turbine.
- FME29/SOF. Kaplan Turbine.
- FME21/SOF. Radial Flow Turbine.

8.1- Fluid Mechanics (Basic)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=fluidmechanicsbasic&lang=en

LIFLUBA. Basic Fluids Mechanics Integrated Laboratory:

FME/CAL. Computer Aided Learning Software (Results Calculation and Analysis)



Available Software Packages:

►General concepts

- FME01/CAL. Impact of a Jet.
- FME02/CAL. Flow over Weirs.
- FME04/CAL. Orifice Discharge.
- FME14/CAL. Free and Forced Vortices.
- FME08/CAL. Hydrostatic Pressure.
- FME10/CAL. Dead Weight Calibrator.
- FME11/CAL. Metacentric Height.
- FME26/CAL. Depression Measurement System (vacuum gauge).
- FME32/CAL. Pitot Static Tube Module. **NEW**

►Laws

- FME03/CAL. Bernoulli's Theorem Demonstration.
- FME22/CAL. Venturi, Bernoulli and Cavitation Unit.

- FME06/CAL. Osborne-Reynolds' Demonstration.
- FME31/CAL. Horizontal Osborne-Reynolds' Demonstration. **NEW**
- FME24/CAL. Unit for the study of Porous Beds in Venturi Tubes (Darcy's Equation).

►Demonstration

- FME09/CAL. Flow Visualization in Channels.
- FME20/CAL. Laminar Flow Demonstration.
- FME30/CAL. Vortex Flow Meter. **NEW**
- FME15/CAL. Water Hammer.
- FME19/CAL. Cavitation Phenomenon Demonstration.
- FME25/CAL. Flow Channel, 1m. length.
- FME18/CAL. Flow Meter Demonstration.
- FME17/CAL. Orifice and Free Jet Flow.

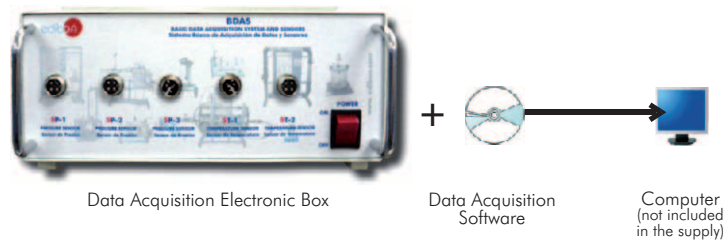
►Pipes

- FME05/CAL. Energy Losses in Bends.
- FME07/CAL. Energy Losses in Pipes.
- FME23/CAL. Basic Pipe Network Unit.

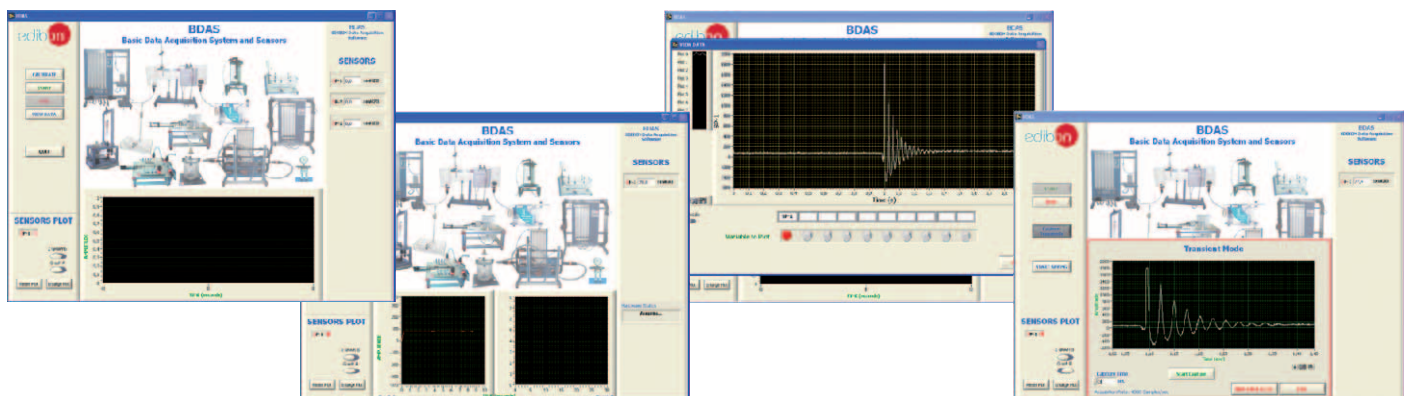
►Hydraulic Machines

- FME12/CAL. Series/Parallel Pumps.
- FME13/CAL. Centrifugal Pumps Characteristics.
- FME27/CAL. Axial Flow Turbine.
- FME16/CAL. Pelton Turbine.
- FME28/CAL. Francis Turbine.
- FME29/CAL. Kaplan Turbine.
- FME21/CAL. Radial Flow Turbine.

BDAS. Basic Data Acquisition System and Sensors **NEW**



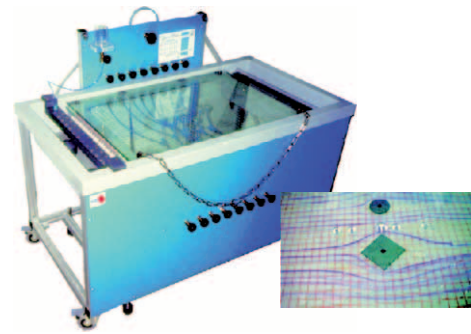
Some screens



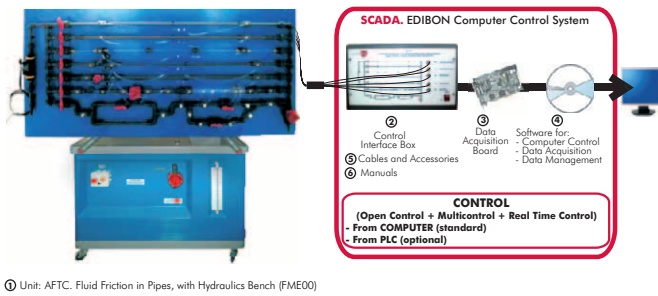
BHI. Hydrostatic Bench & Fluid Properties



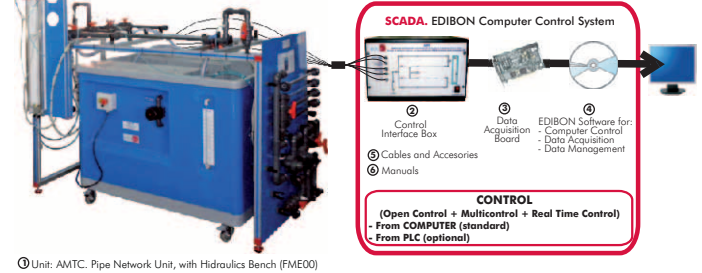
LFA. Laminar Flow Visualization and Analysis Unit



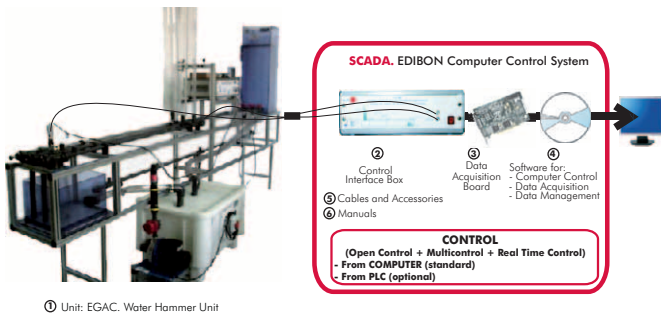
AFTC. Computer Controlled Fluid Friction in Pipes, with Hydraulics Bench (FME00) *



AMTC. Computer Controlled Pipe Network Unit, with Hydraulics Bench (FME00) *



EGAC. Computer Controlled Water Hammer Unit



HMM. Manometers & Multimanometers



HVB. Falling Sphere Viscosimeter and Drag Coefficient



UVF. Hydrogen Bubble Flow Visualisation Unit



FMDU. Flow Meters Demonstration Unit



Other available Units: **NEW**

- HCMP. Precision Pressure Gauge Calibrator
- HECA. Air Flow Studies Unit
- HSMAP. Air Pressure Maintained Water System Trainer

* Non computer controlled version available too.

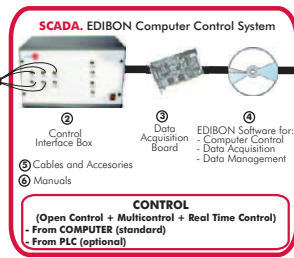
8.3- Fluid Mechanics (Flow Channels)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=fluidmechanicsflowchannels&lang=en

CFC. Computer Controlled Flow Channels (section: 80 x 300 mm) *



① Unit: CFC. Flow Channels (section: 80 x 300 mm)

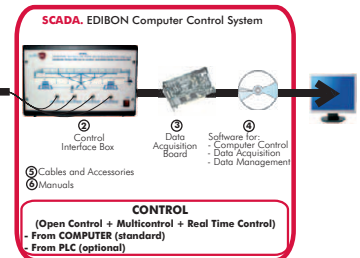


Available lengths: 2.5 / 5 / 7.5 and 10 m.

CFGC. Computer Controlled Flow Channels (section: 300 x 450 mm) *



① Unit: CFGC. Flow Channels (section: 300 x 450 mm)



Available lengths: 5 / 7.5 / 10 / 12.5 and 15 m.

On request: Any other dimensions.

CAS. Sediment Transport Demonstration Channel



Other available Units: **NEW**

- HVFLM. **Mobile Bed and Flow Visualisation Unit**

- FME25. **Flow Channel, 1m. length** (see page 47)

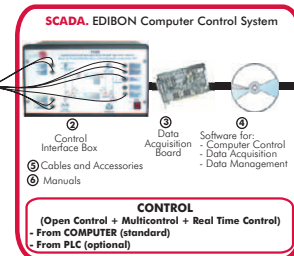
8.4- Hydraulic Machines (Pumps)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=hydraulicmachinespumps&lang=en

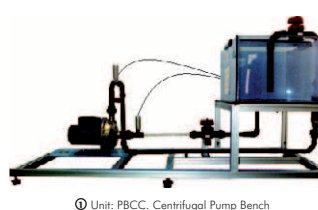
PBOC. Computer Controlled Multipump Testing Bench



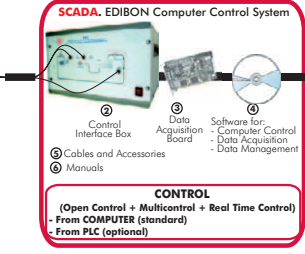
① Unit: PBOC. Multipump Testing Bench



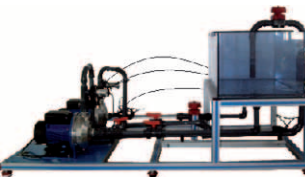
PBCC. Computer Controlled Centrifugal Pump Bench *



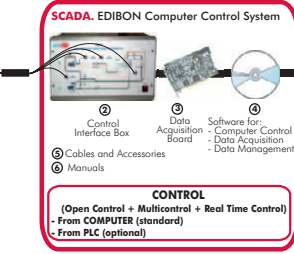
① Unit: PBCC. Centrifugal Pump Bench



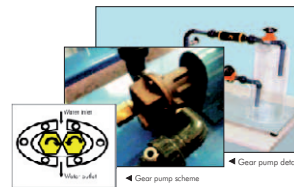
PBSPC. Computer Controlled Series/Parallel Pumps Bench *



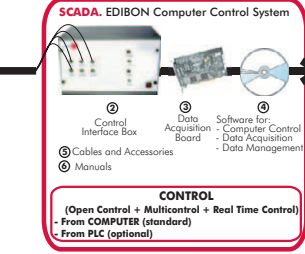
① Unit: PBSPC. Series/Parallel Pumps Bench



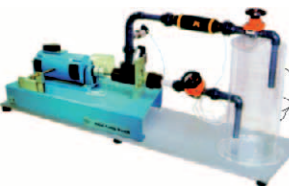
PBEC. Computer Controlled Gear Pump Bench



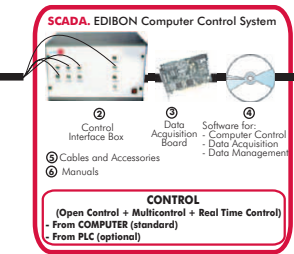
① Unit: PBEC. Gear Pump Bench



PBAC. Computer Controlled Axial Pump Bench



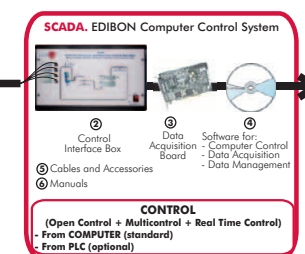
① Unit: PBAC. Axial Pump Bench



PBRC. Computer Controlled Piston Pump Bench



① Unit: PBRC. Piston Pump Bench

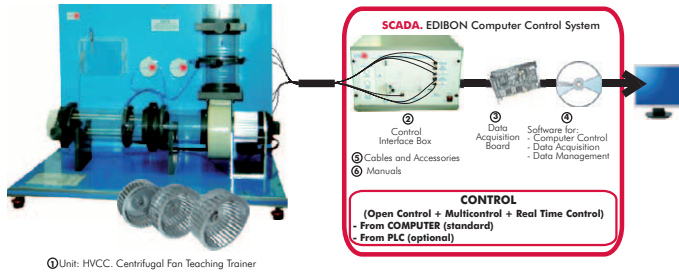


* Non computer controlled version available too.

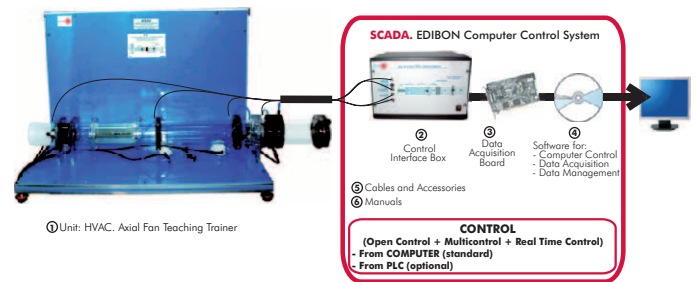
8.5- Hydraulic Machines (Fans and Compressors)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=hydraulicmachinesfans&lang=en

HVCC. Computer Controlled Centrifugal Fan Teaching Trainer *



HVAC. Computer Controlled Axial Fan Teaching Trainer *



Other available Unit:

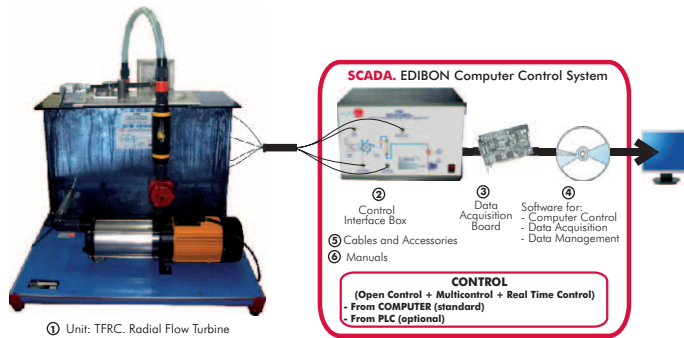
NEW

- HCCC. Computer Controlled Centrifugal Compressor Demonstration Unit

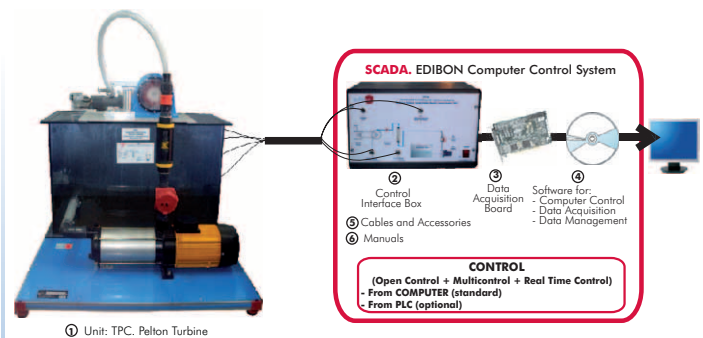
8.6- Hydraulic Machines (Turbines)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=hydraulicmachines&lang=en

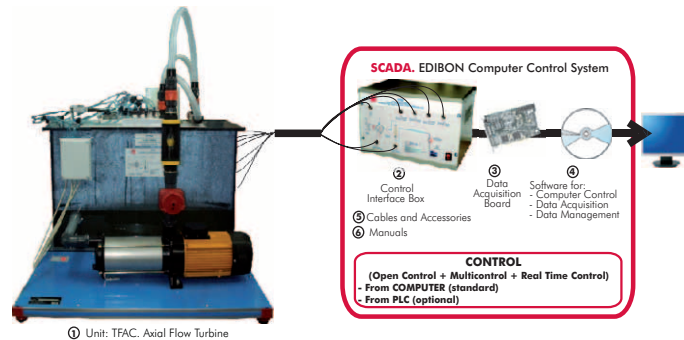
TFRC. Computer Controlled Radial Flow Turbine



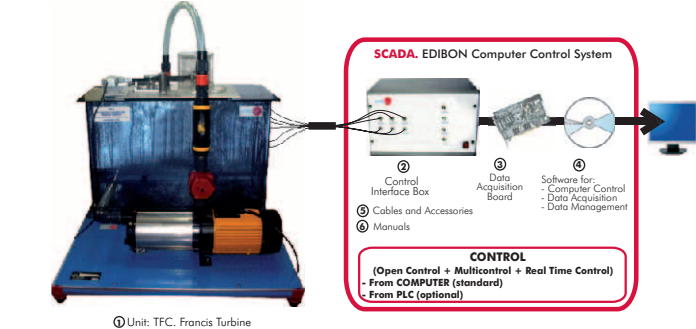
TPC. Computer Controlled Pelton Turbine



TFAC. Computer Controlled Axial Flow Turbine

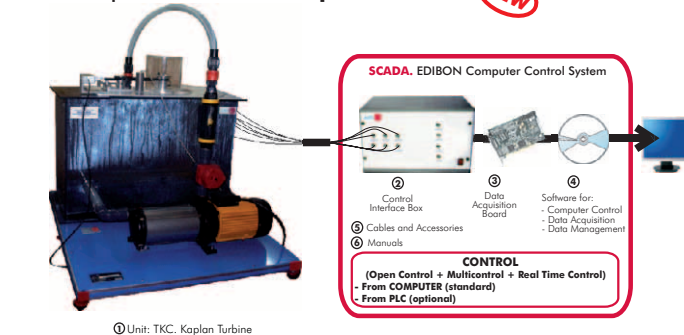


TFC. Computer Controlled Francis Turbine

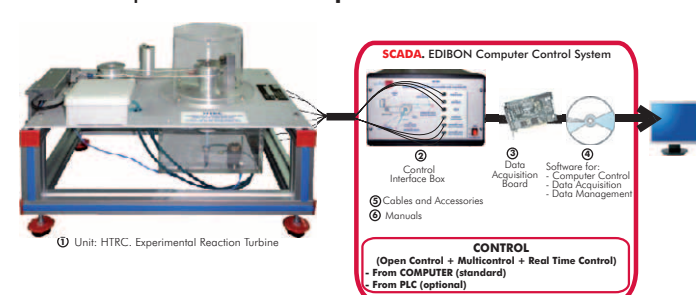


TKC. Computer Controlled Kaplan Turbine

NEW



HTRC. Computer Controlled Experimental Reaction Turbine

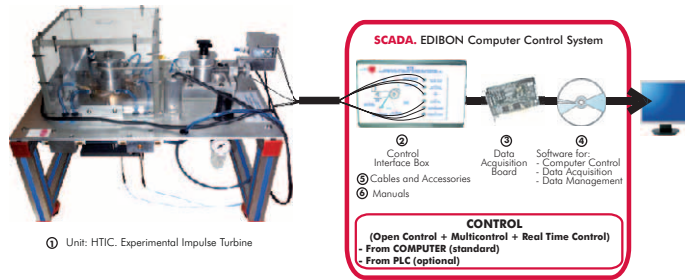


* Non computer controlled version available too.

8.6- Hydraulic Machines (Turbines)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=hydraulicmachines&lang=en

HTIC. Computer Controlled Experimental Impulse Turbine

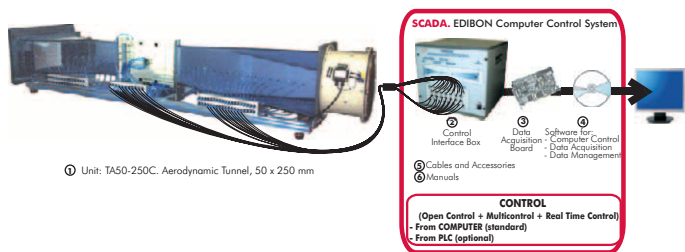


See other Turbines in section "9.14. Thermal Turbines" (page 65)

8.7- Aerodynamics (Basic)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=aerodynamicsbasic&lang=en

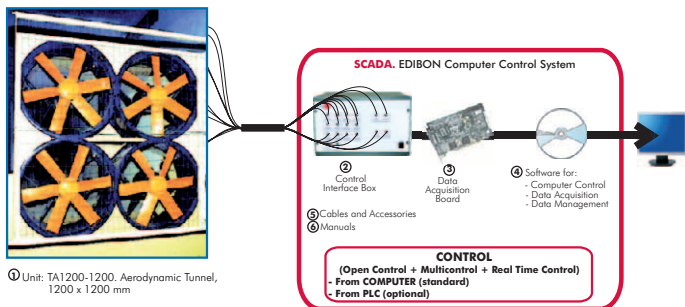
TA50/250C. Computer Controlled Aerodynamic Tunnel, 50 x 250 mm *



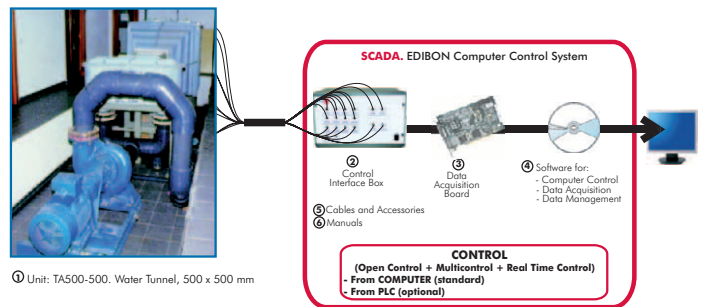
8.8- Aerodynamics (General)

www.edibon.com/products/index.php?area=fluidmechanicsaerodynamics&subarea=aerodynamicsgeneral&lang=en

TA1200/1200. Computer Controlled Aerodynamic Tunnel, 1200 x 1200 mm



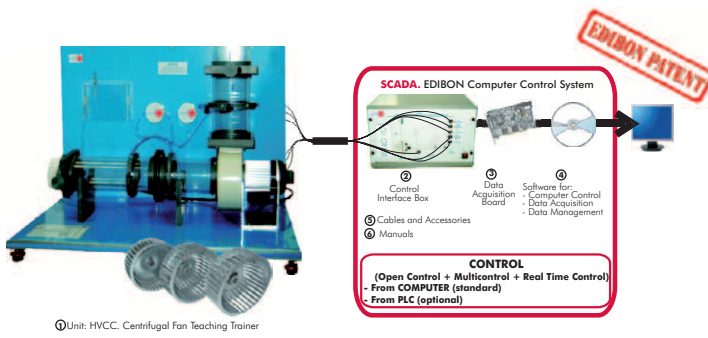
TA500/500. Computer Controlled Water Tunnel, 500 x 500 mm



* Non computer controlled version available too.

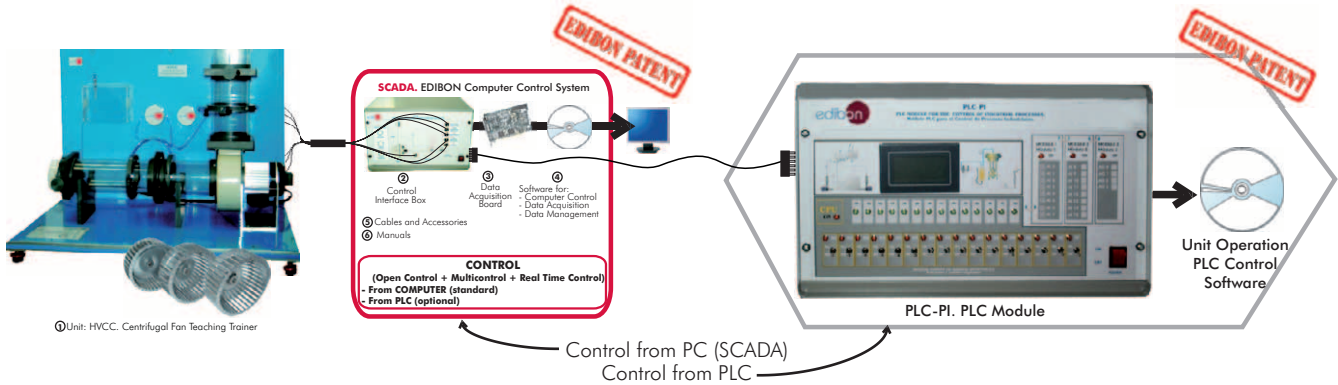
Fluid Mechanics & Aerodynamics control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

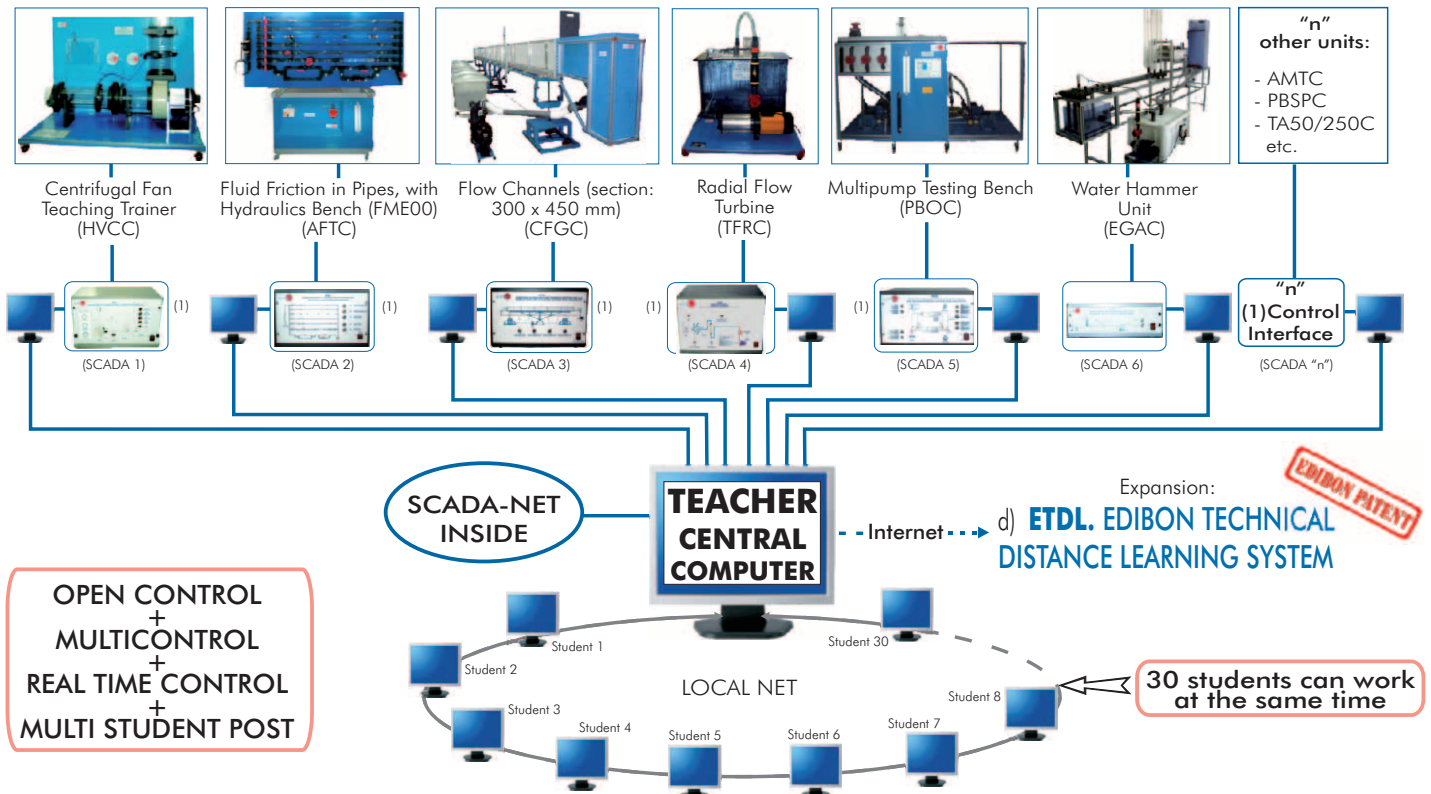


Units that can use Control from PC and PLC in this area:

AFTC, AMTC, EGAC, CFC, CFGC, PBOC, PBCC, PBSPC, PBEC, PBAC, PBRC, HVCC, HVAC, HCCC, TFRC, TPC, TFAC, TFC, TKC, HTRC, HTIC, TA50/250C, TA1200/1200, TA500/500.

c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/fluidmechanicsaerodynamics/esn-fluidmechanics/ESN-FLUID_MECHANICS.pdf



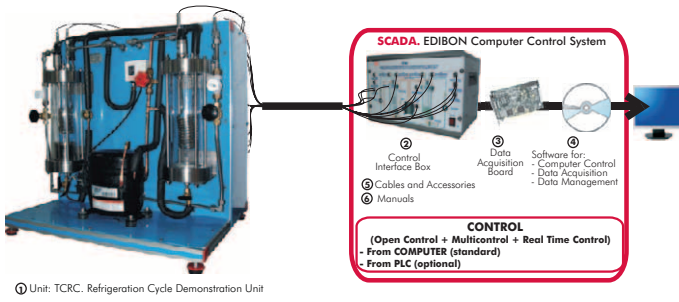
Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC's) or ESN-PLC (only PLC's) or ESN-PCPLC (PC's + PLC's).

9.1 - Refrigeration

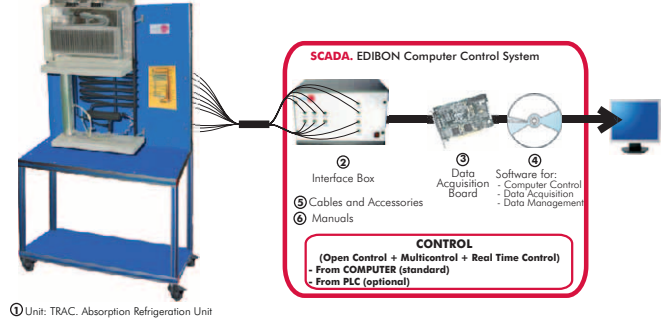
www.edibon.com/products/index.php?area=thermodynamicsthermotechnics&subarea=refrigeration&lang=en

Basic Refrigeration

TCRC. Computer Controlled Refrigeration Cycle Demonstration Unit *



TRAC. Computer Controlled Absorption Refrigeration Unit **NEW**



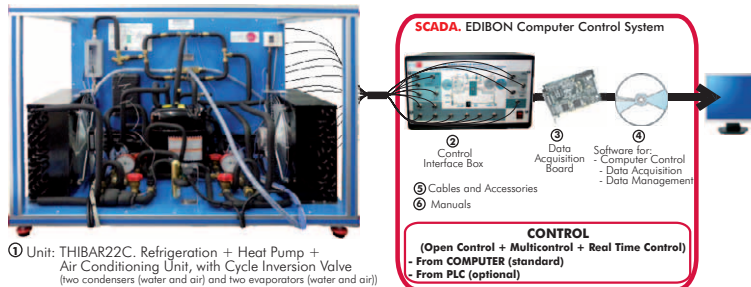
Other available Units: **NEW**

-TRCVC. Computer Controlled Vapour-Compression Refrigeration Unit

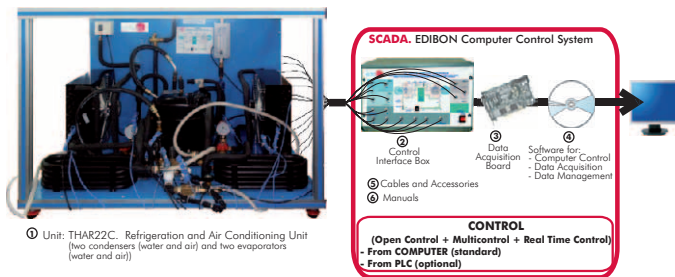
-TRD2PC. Two Doors Domestic Refrigeration System Trainer

General Refrigeration

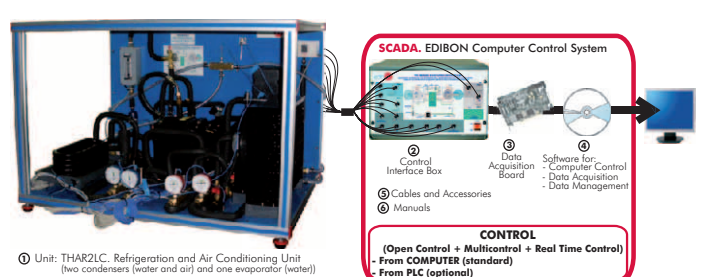
THIBAR22C. Computer Controlled Refrigeration + Heat Pump + Air Conditioning Unit, with Cycle Inversion Valve (two condensers and two evaporators) * **COMPLETE**



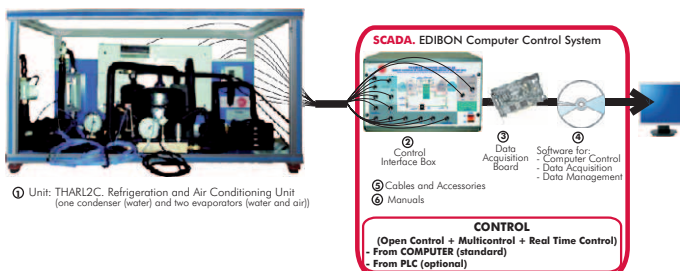
THAR22C. Computer Controlled Refrigeration and Air Conditioning Unit (two condensers and two evaporators) *



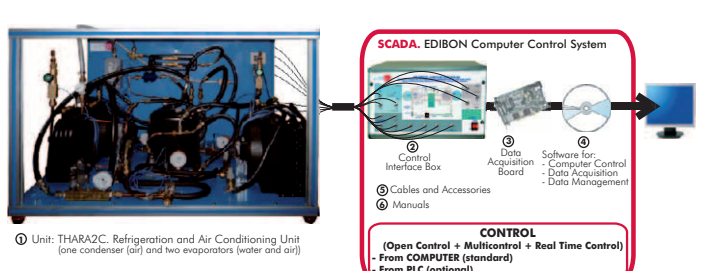
THAR2LC. Computer Controlled Refrigeration and Air Conditioning Unit (two condensers and water evaporator) *



THARL2C. Computer Controlled Refrigeration and Air Conditioning Unit (water condenser and two evaporators) *



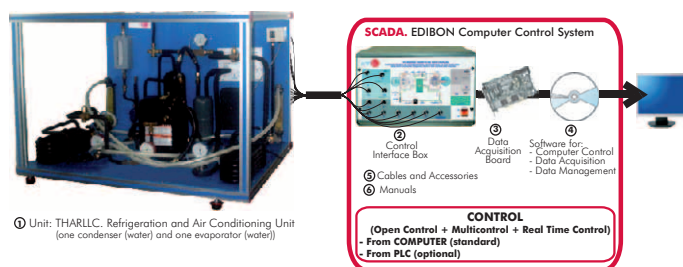
THARA2C. Computer Controlled Refrigeration and Air Conditioning Unit (air condenser and two evaporators) *



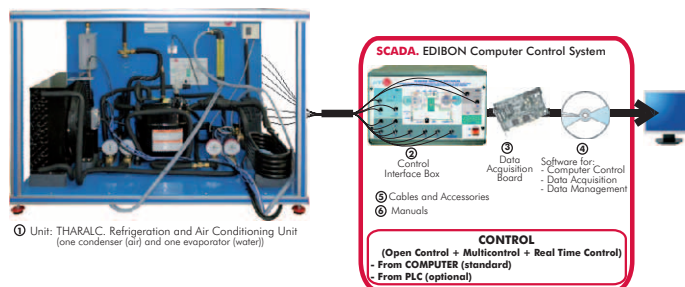
* Non computer controlled version available too.

General Refrigeration

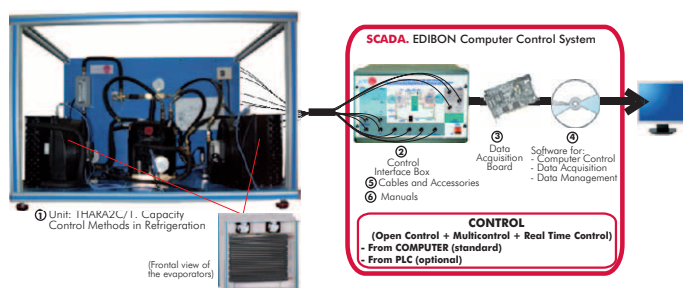
THARLLC. Computer Controlled Refrigeration and Air Conditioning Unit (water condenser and water evaporator) *



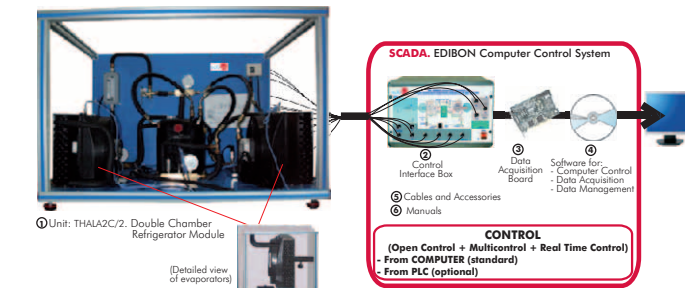
THARALC. Computer Controlled Refrigeration and Air Conditioning Unit (air condenser and water evaporator) *



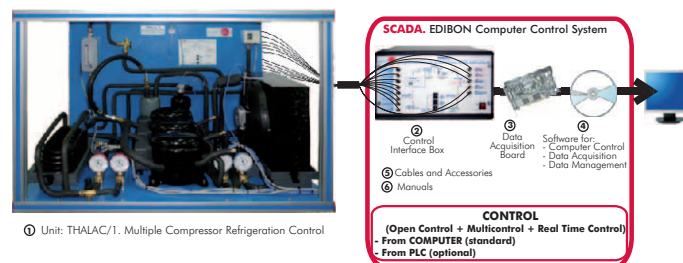
THARA2C/1. Computer Controlled Capacity Control Methods in Refrigeration



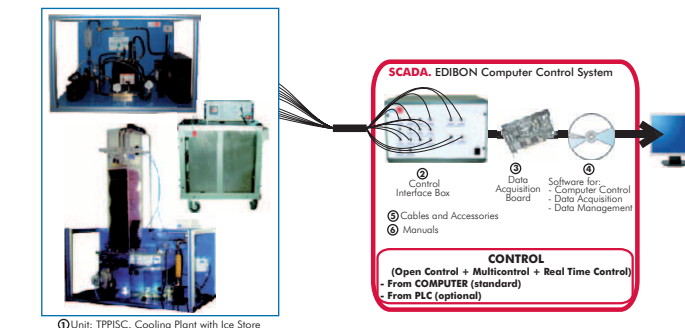
THARA2C/2. Computer Controlled Double Chamber Refrigerator Module



THALAC/1. Computer Controlled Multiple Compressor Refrigeration Control

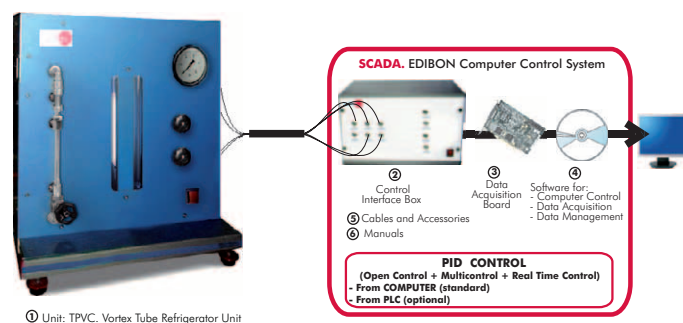


TCPISC. Computer Controlled Cooling Plant with Ice Store **NEW**

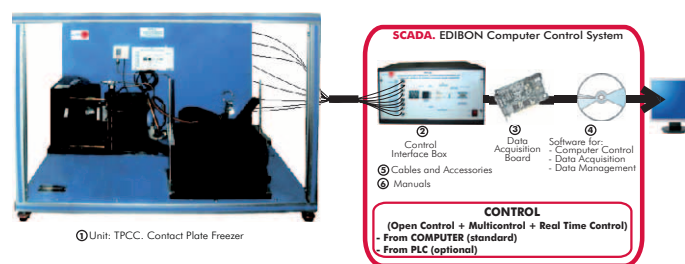


Special Refrigeration

TPVC. Computer Controlled Vortex Tube Refrigerator Unit



TPCC. Computer Controlled Contact Plate Freezer



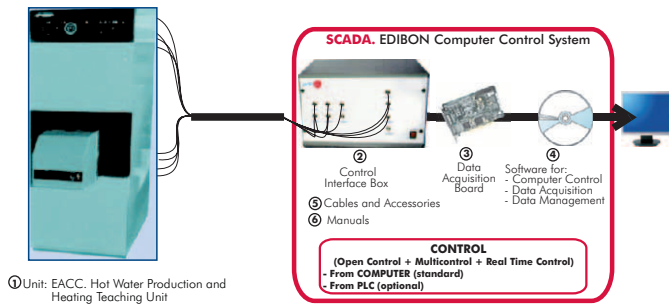
Other available Unit:

- TEVC. Computer Controlled Ventilation Trainer (see page 46)

9.3- Heating

www.edibon.com/products/index.php?area=thermodynamics&thermotechnics&subarea=heating&lang=en

EACC. Computer Controlled Hot Water Production and Heating Teaching Unit



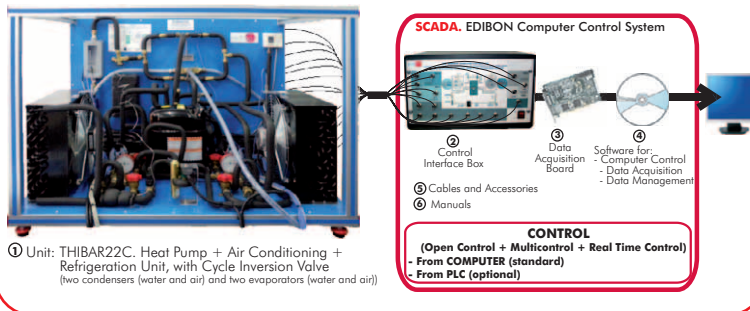
9.4- Heat Pumps

www.edibon.com/products/index.php?area=thermodynamics&thermotechnics&subarea=heatpumps&lang=en

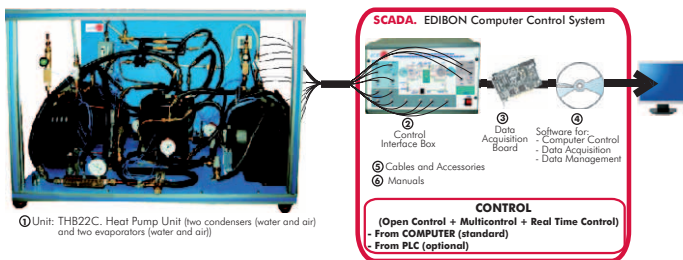
► General Heat Pumps

THIBAR22C. Computer Controlled Heat Pump + Air Conditioning + Refrigeration Unit, with Cycle Inversion Valve (two condensers and two evaporators) *

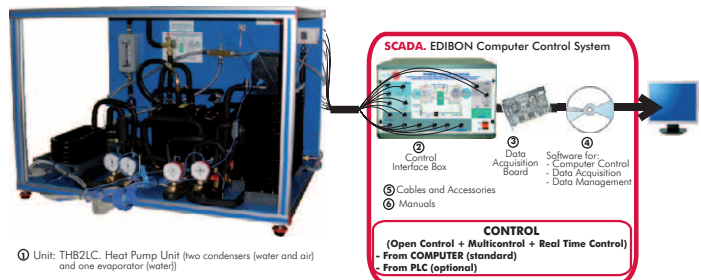
COMPLETE



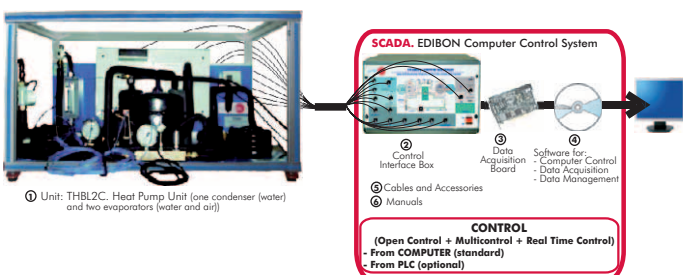
THB22C. Computer Controlled Heat Pump Unit (two condensers and two evaporators) *



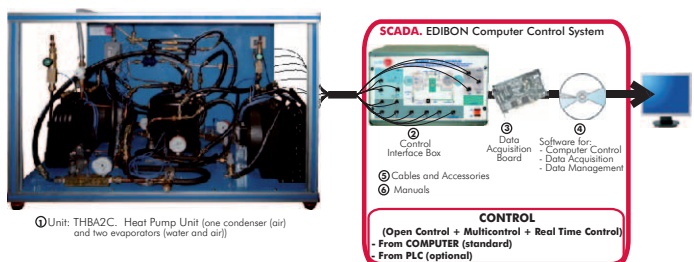
THB2LC. Computer Controlled Heat Pump Unit (two condensers and water evaporator) *



THBL2C. Computer Controlled Heat Pump Unit (water condenser and two evaporators) *



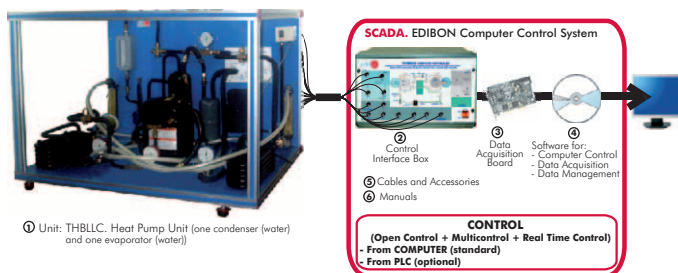
THBA2C. Computer Controlled Heat Pump Unit (air condenser and two evaporators) *



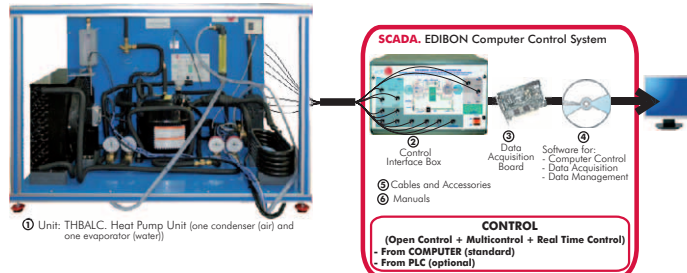
* Non computer controlled version available too.

General Heat Pumps

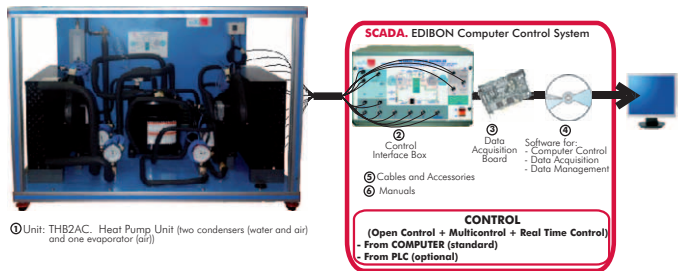
THBLLC. Computer Controlled Heat Pump Unit (water condenser and water evaporator) *



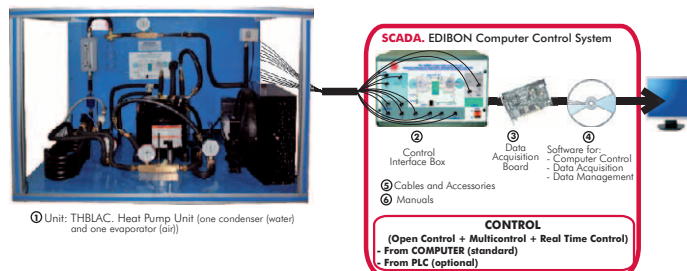
THBALC. Computer Controlled Heat Pump Unit (air condenser and water evaporator) *



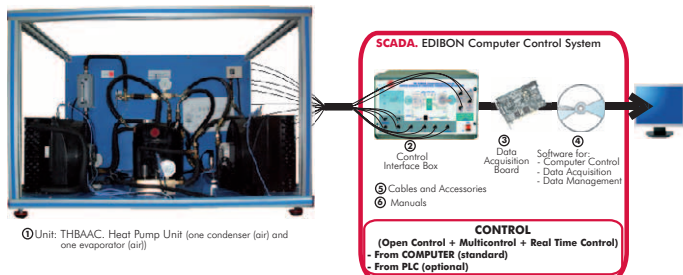
THB2AC. Computer Controlled Heat Pump Unit (two condensers and air evaporator) *



THBLAC. Computer Controlled Heat Pump Unit (water condenser and air evaporator) *

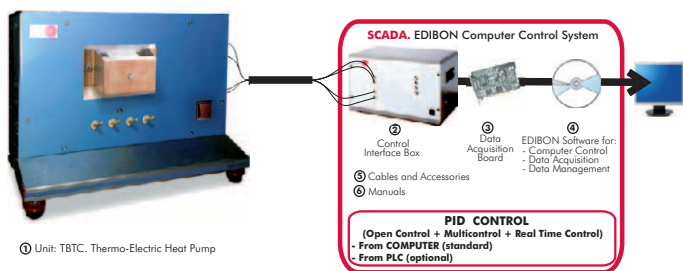


THBAAC. Computer Controlled Heat Pump Unit (air condenser and air evaporator) *



Special Heat Pumps

TBTC. Computer Controlled Thermo-Electric Heat Pump



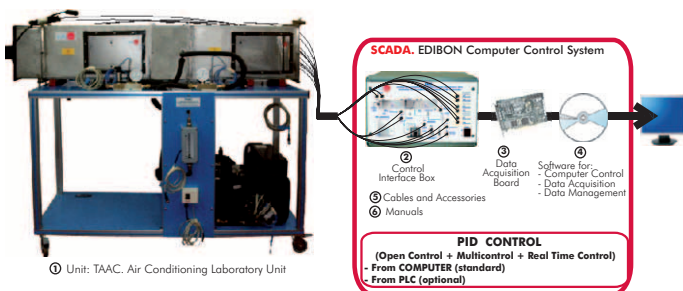
TBCF. Bomb Calorimeter Set for Testing Calorific Value of Fuels



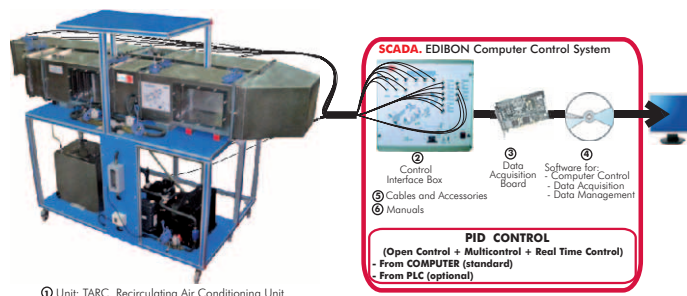
9.5- Air Conditioning

General Air Conditioning

TAAC. Computer Controlled Air Conditioning Laboratory Unit *



TARC. Computer Controlled Recirculating Air Conditioning Unit *



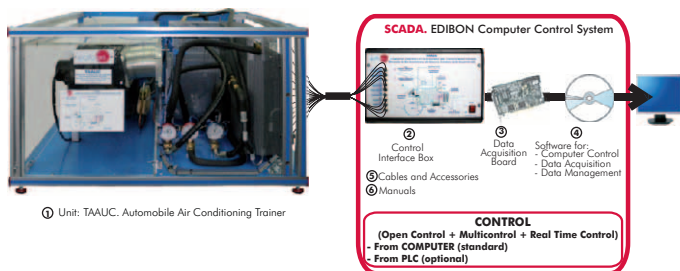
* Non computer controlled version available too.

9.5- Air Conditioning

www.edibon.com/products/index.php?area=thermodynamics&thermotechnics&subarea=airconditioning&lang=en

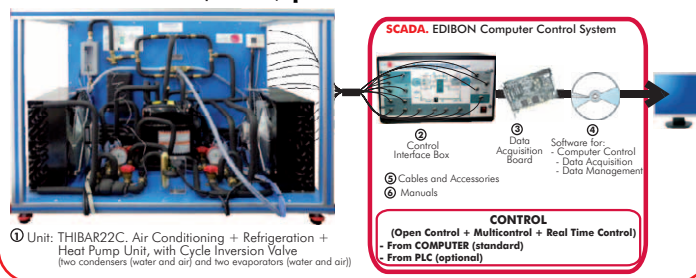
► General Air Conditioning

TAAUC. Computer Controlled Automobile Air Conditioning Trainer*

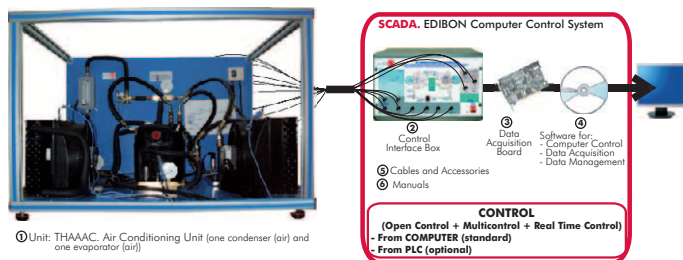


► Applied Air Conditioning

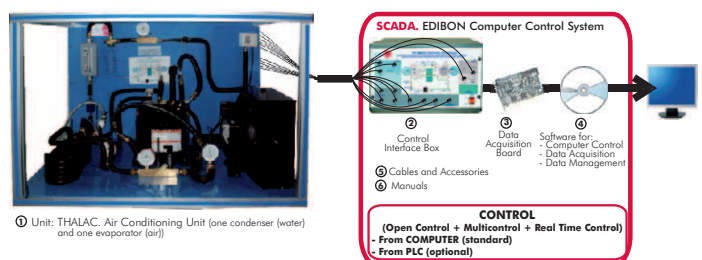
THIBAR22C. Computer Controlled Air Conditioning + Refrigeration + Heat Pump Unit, with Cycle Inversion Valve (two condensers and two Evaporators) *



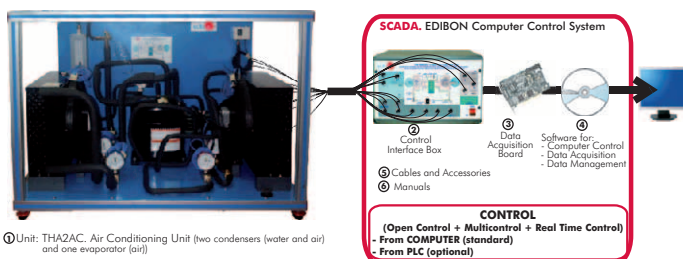
THAAAC. Computer Controlled Air Conditioning Unit (air condenser and air evaporator) *



THALAC. Computer Controlled Air Conditioning Unit (water condenser and air evaporator) *



THA2AC. Computer Controlled Air Conditioning Unit (two condensers and air evaporator) *



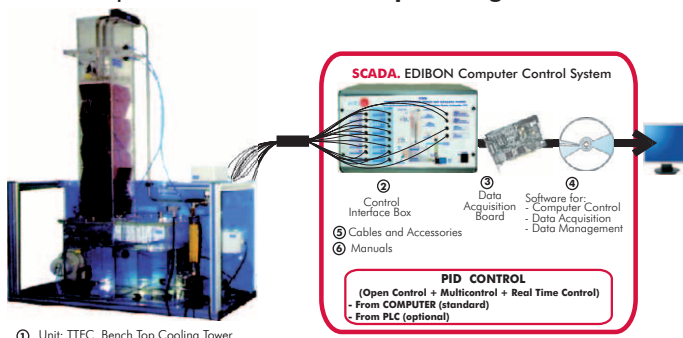
Other available Units:

Also see "THAR "Series in section "9.1. Refrigeration" (pages 55 and 56)

9.6- Cooling Towers

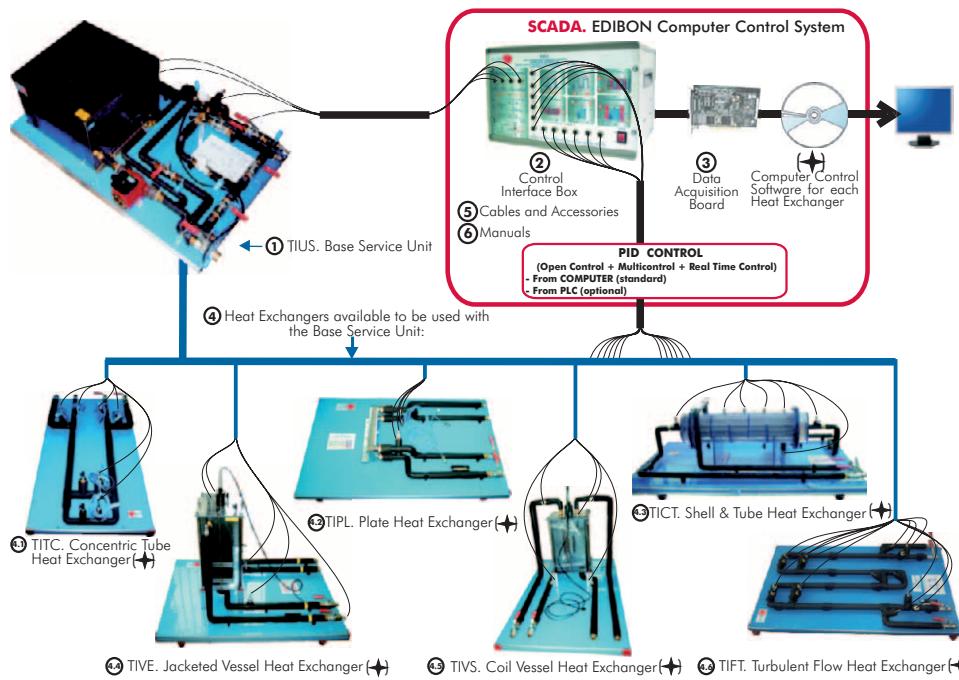
www.edibon.com/products/index.php?area=thermodynamics&thermotechnics&subarea=coolingtowers&lang=en

TTEC. Computer Controlled Bench Top Cooling Tower *



* Non computer controlled version available too.

TICC. Computer Controlled Heat Exchangers Training System: *

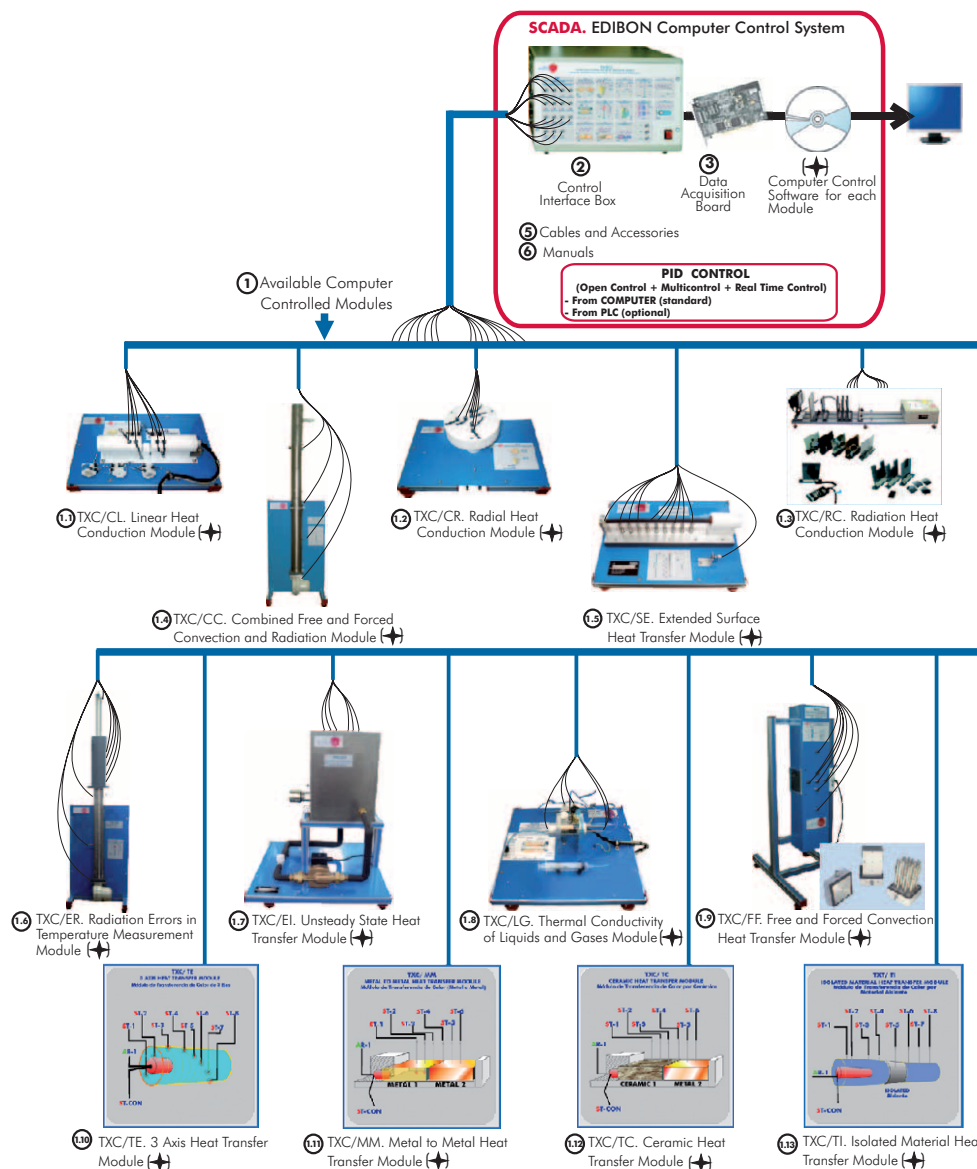


Other available Heat Exchangers to be used with the Base Service Unit (TIUS):

- TITCA. Extended Tubular Heat Exchanger
- TIPLA. Extended Reconfigurable Plate Heat Exchanger
- TICF. Cross Flow Heat Exchanger

9.8- Heat Transfer (Basic)

TSTCC. Computer Controlled Heat Transfer Series: *



* Non computer controlled version available too.

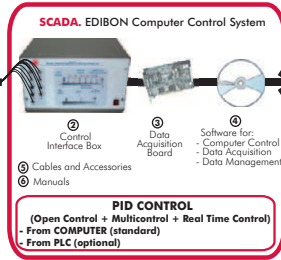
9.9- Heat Transfer (General)

www.edibon.com/products/index.php?area=thermodynamics&thermotechnics&subarea=heattransfergeneral&lang=en

TRTC. Computer Controlled Thermal Radiation and Light Radiation Unit



① Unit: TRTC. Thermal Radiation and Light Radiation Unit



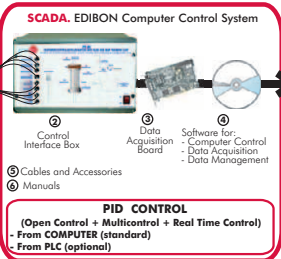
TMT. Temperature Measurement Unit



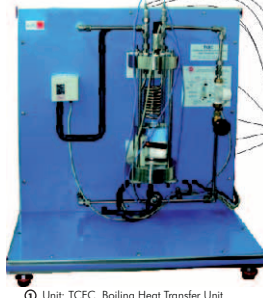
TTLFC. Computer Controlled Fluidisation and Fluid Bed Heat Transfer Unit *



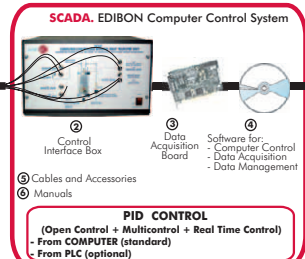
① Unit: TTLFC. Fluidisation and Fluid Bed Heat Transfer Unit



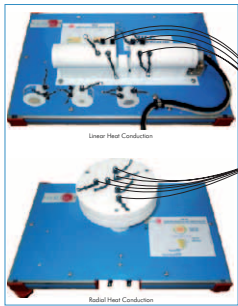
TCEC. Computer Controlled Boiling Heat Transfer Unit *



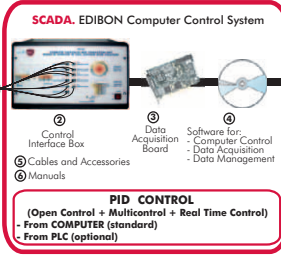
① Unit: TCEC. Boiling Heat Transfer Unit



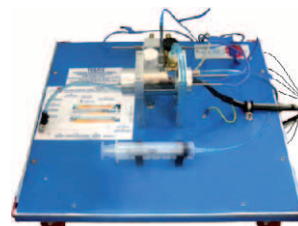
TCCC. Computer Controlled Heat Conduction Unit



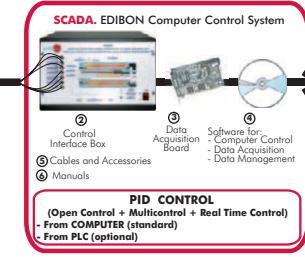
① Unit: TCCC. Heat Conduction Unit



TCLGC. Computer Controlled Thermal Conductivity of Liquids and Gases Unit



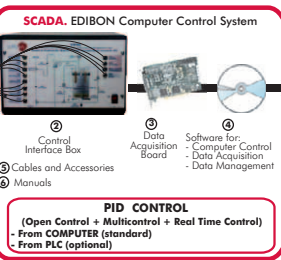
① Unit: TCLGC. Thermal Conductivity of Liquids and Gases Unit



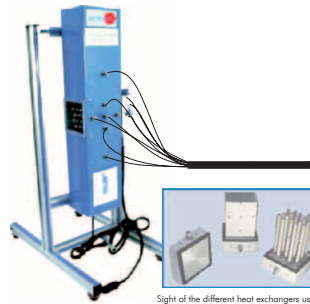
TCPGC. Computer Controlled Film and Dropwise Condensation Unit *



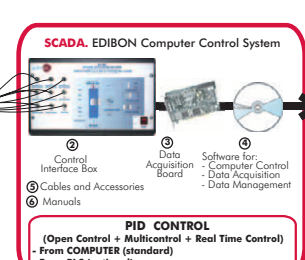
① Unit: TCGPC. Film and Dropwise Condensation Unit



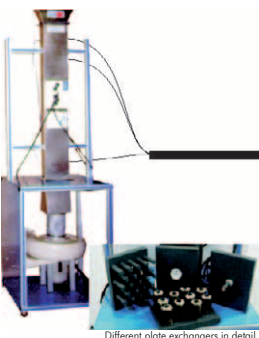
TCLFC. Computer Controlled Free and Forced Convection Heat Transfer Unit



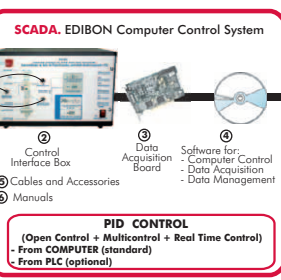
① Unit: TCLFC. Free and Forced Convection Heat Transfer Unit



TIFCC. Computer Controlled Cross Flow Heat Exchanger *



① Unit: TIFCC. Cross Flow Heat Exchanger

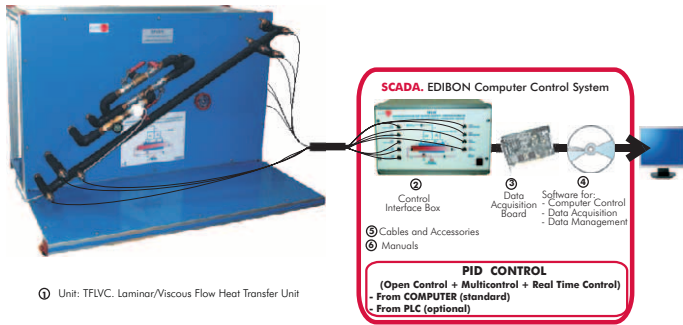


Other available Units: **NEW**

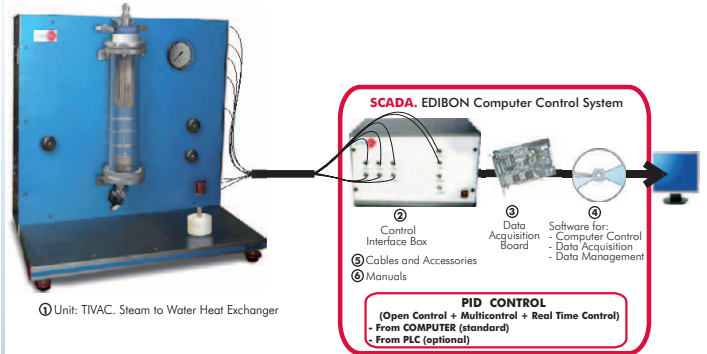
- TMCP. **Pressure Measurement and Calibration Unit**
- TCMC. **Computer Controlled Thermal Conductivity of Building and Insulating Materials Unit** (see page 46)

* Non computer controlled version available too.

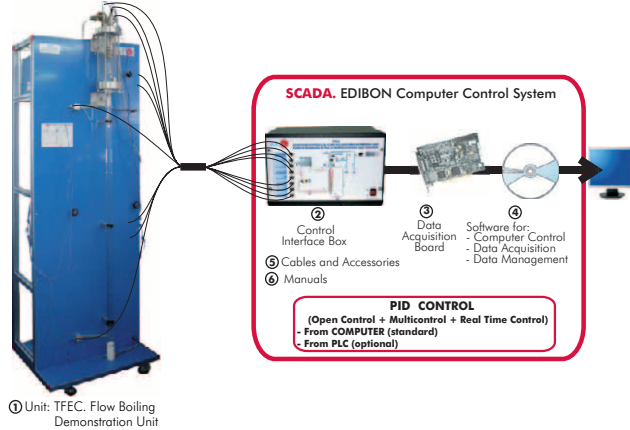
TFLVC. Computer Controlled Laminar/Viscous Flow Heat Transfer Unit *



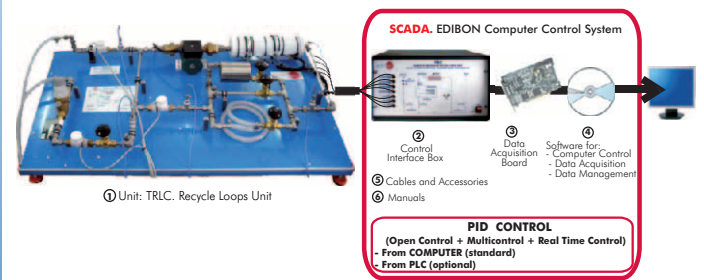
TIVAC. Computer Controlled Steam to Water Heat Exchanger



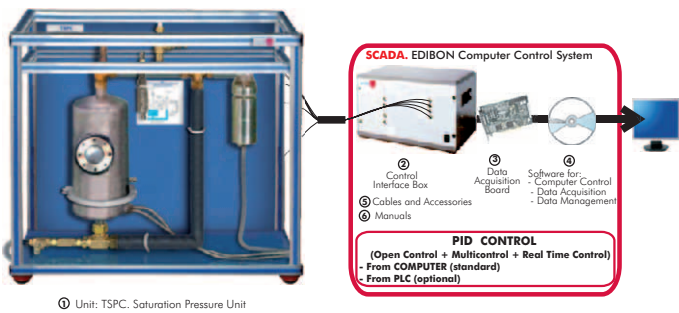
TFEC. Computer Controlled Flow Boiling Demonstration Unit *



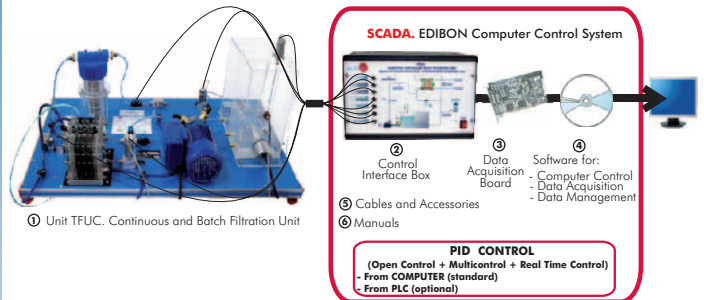
TRLC. Computer Controlled Recycle Loops Unit *



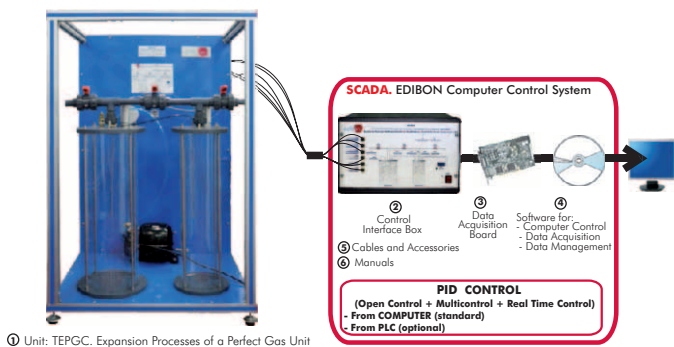
TSPC. Computer Controlled Saturation Pressure Unit



TFUC. Computer Controlled Continuous and Batch Filtration Unit *



TEPGC. Computer Controlled Expansion Processes of a Perfect Gas Unit

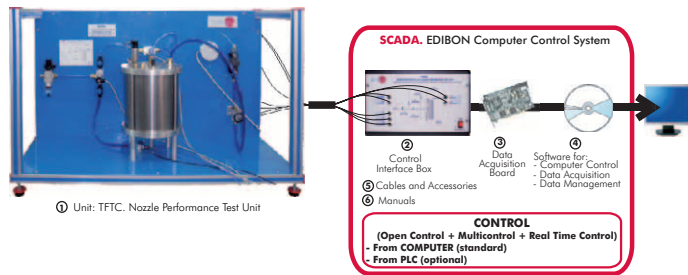


* Non computer controlled version available too.

9.11- Nozzles & Steam

www.edibon.com/products/index.php?area=thermodynamicsthermotechnics&subarea=nozzlessteam&lang=en

TFTC. Computer Controlled Nozzle Performance Test Unit



TPT. Nozzle Pressure Distribution Unit



TGV. Steam Generator (3kW)



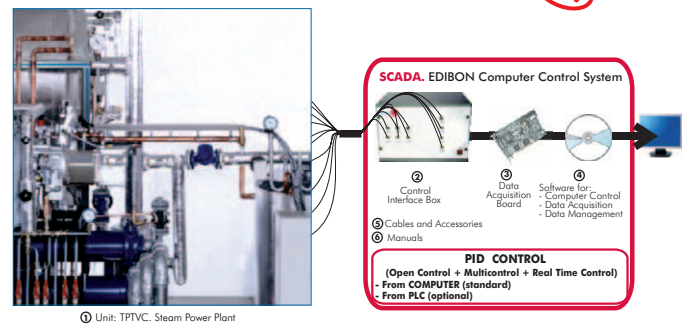
TGV-6KW. Steam Generator (6kW)



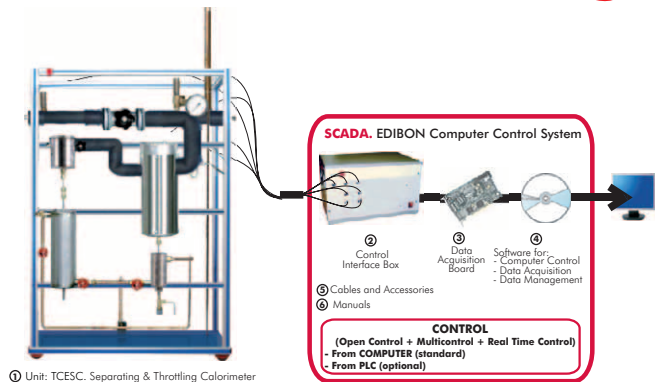
TGV-6KWA. Steam Generator (6kW) (for high pressures and high temperatures)



TPTVC. Computer Controlled Steam Power Plant **NEW**



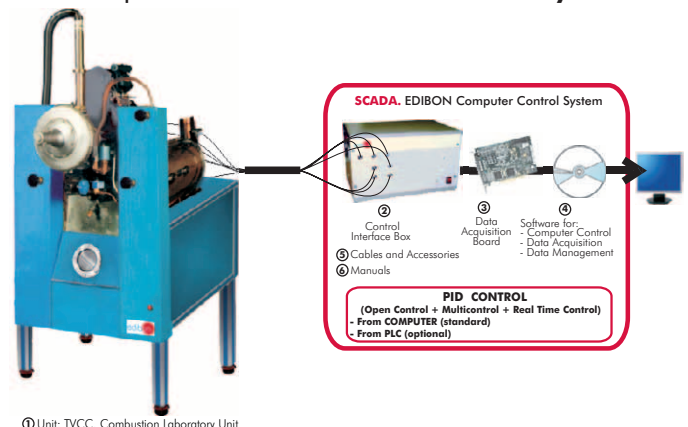
TCESC. Computer Controlled Separating & Throttling Calorimeter **NEW**



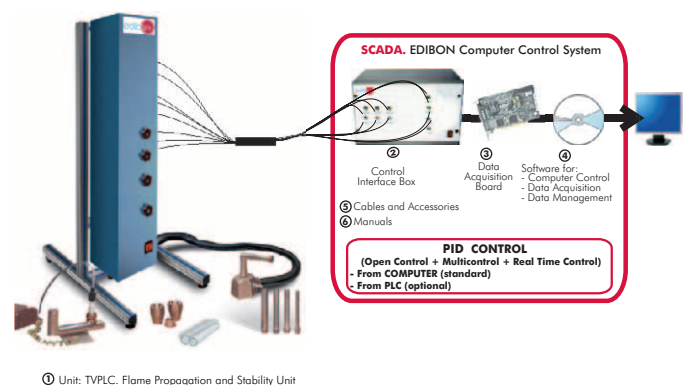
9.12- Combustion

www.edibon.com/products/index.php?area=thermodynamicsthermotechnics&subarea=combustion&lang=en

TVCC. Computer Controlled Combustion Laboratory Unit

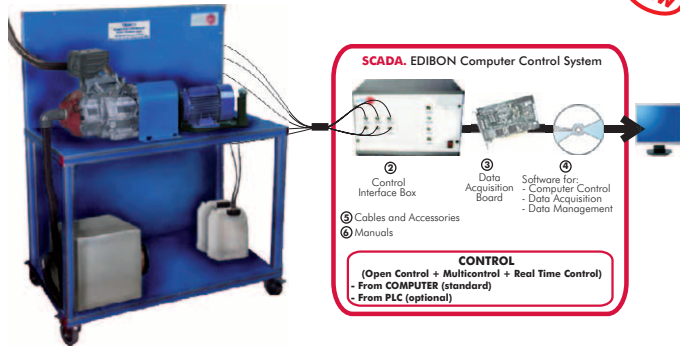


TVPLC. Computer Controlled Flame Propagation and Stability Unit



TBMC3. Computer Controlled Test Bench for Single-Cylinder Engines, 2.2 kW

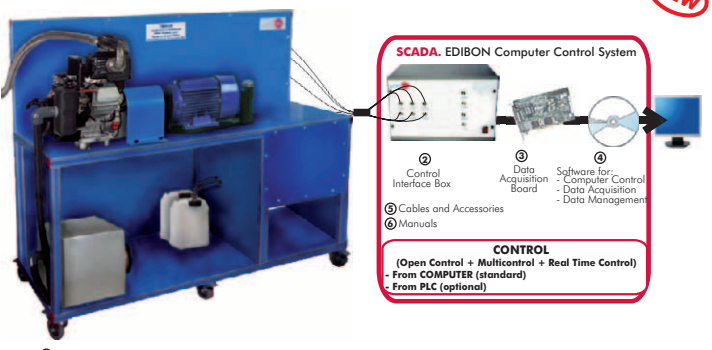
NEW



① Unit: TBMC3. Test Bench for Single-Cylinder Engines, 2.2 kW

TBMC8. Computer Controlled Test Bench for Single-Cylinder Engines, 7.5 kW

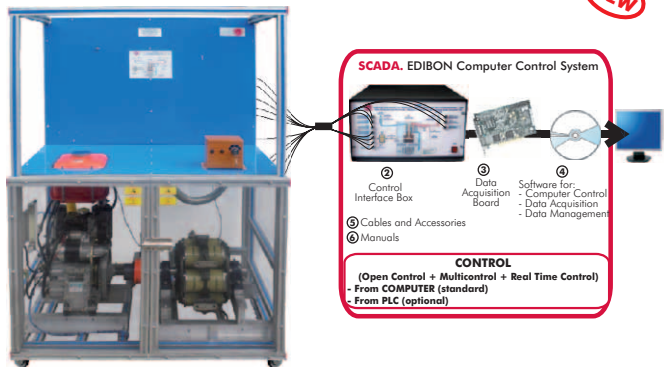
NEW



① Unit: TBMC8. Test Bench for Single-Cylinder Engines, 7.5 kW

TBMC12. Computer Controlled Test Bench for Single-Cylinder and Two-Cylinders Engines, 11 kW

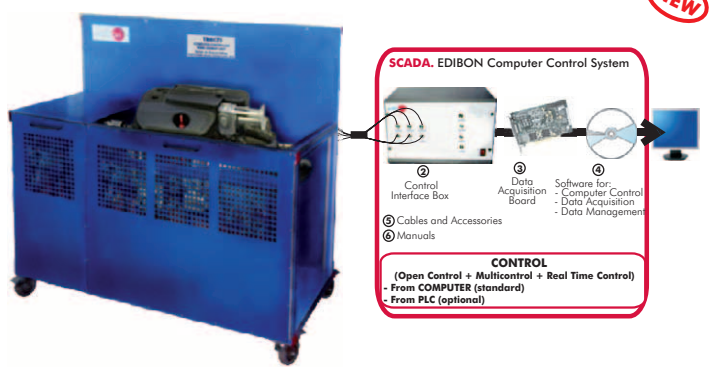
NEW



① Unit: TBMC12. Test Bench for Single-Cylinder and Two-Cylinders Engines, 11 kW

TBMC75. Computer Controlled Test Bench for Four-Cylinders Engines, 75 kW

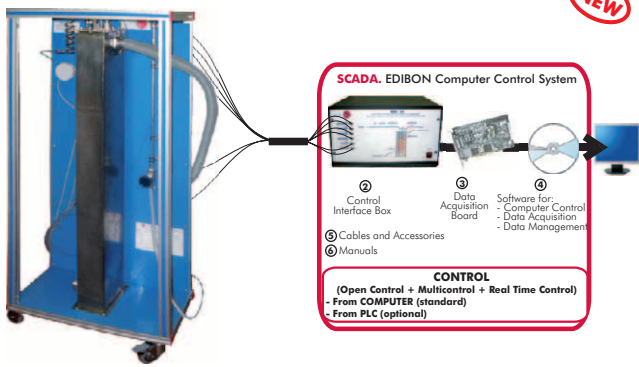
NEW



① Unit: TBMC75. Test Bench for Four-Cylinders Engines, 75 kW

TBMC-CG. Computer Controlled Exhaust Gas Calorimeter

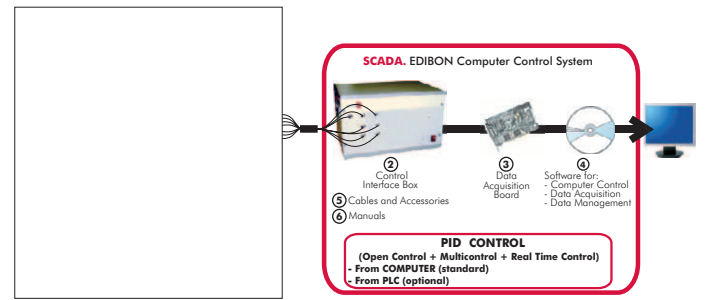
NEW



① Unit: TBMC-CG. Exhaust Gas Calorimeter

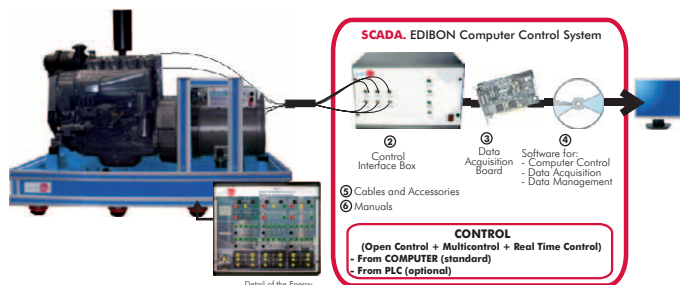
TMSC. Computer Controlled Stirling Motor

NEW



① Unit: TMSC. Stirling Motor

TDEGC. Computer Controlled Diesel Engine Electricity Generator



① Unit: TDEGC. Diesel Engine Electricity Generator

TBMC-AGE. Exhaust Gas Analyzer

NEW



Other available Unit:

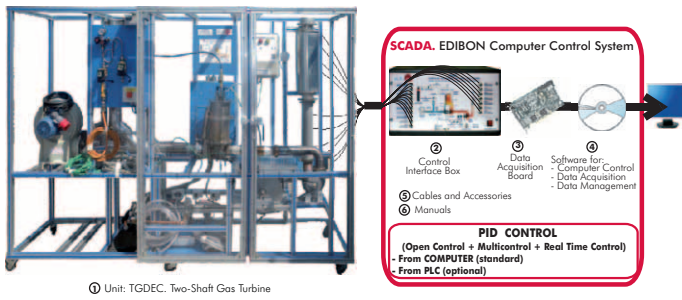
- TMHC Computer Controlled Test Bench for Hybrid Engine

NEW

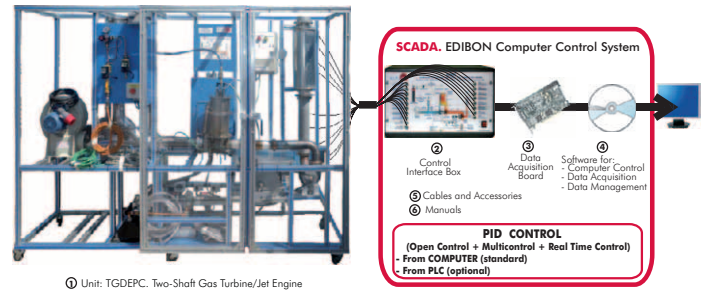
9.14- Thermal Turbines

www.edibon.com/products/index.php?area=thermodynamicsthermotechnics&subarea=turbines&lang=en

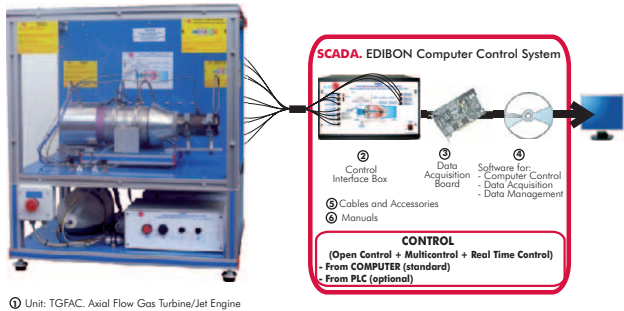
TGDEC. Computer Controlled Two-Shaft Gas Turbine **NEW**



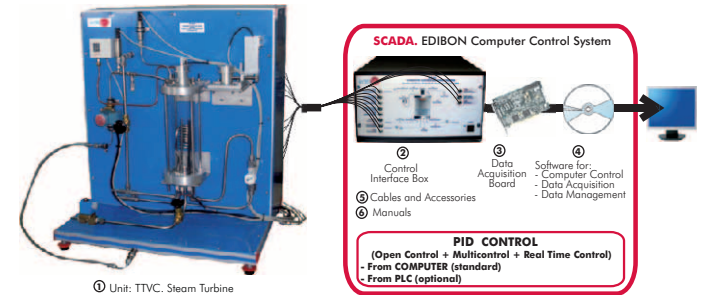
TGDEPC. Computer Controlled Two-Shaft Gas Turbine/Jet Engine **NEW**



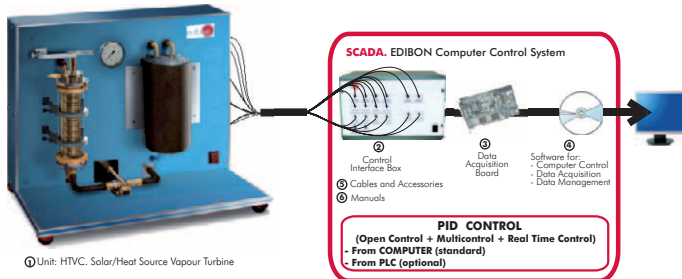
TGFAC. Computer Controlled Axial Flow Gas Turbine/Jet Engine **NEW**



TTVC. Computer Controlled Steam Turbine



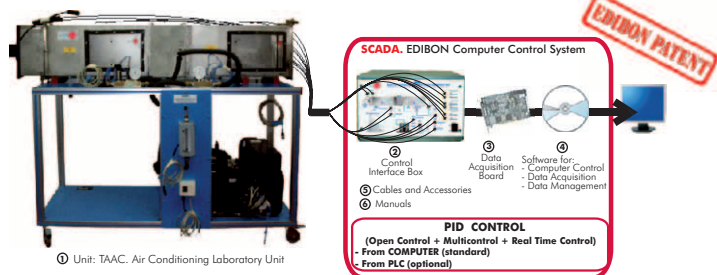
HTVC. Computer Controlled Solar/Heat Source Vapour Turbine



See other Turbines in section "8.6. Hydraulic Machines (Turbines)" (pages 52-53)

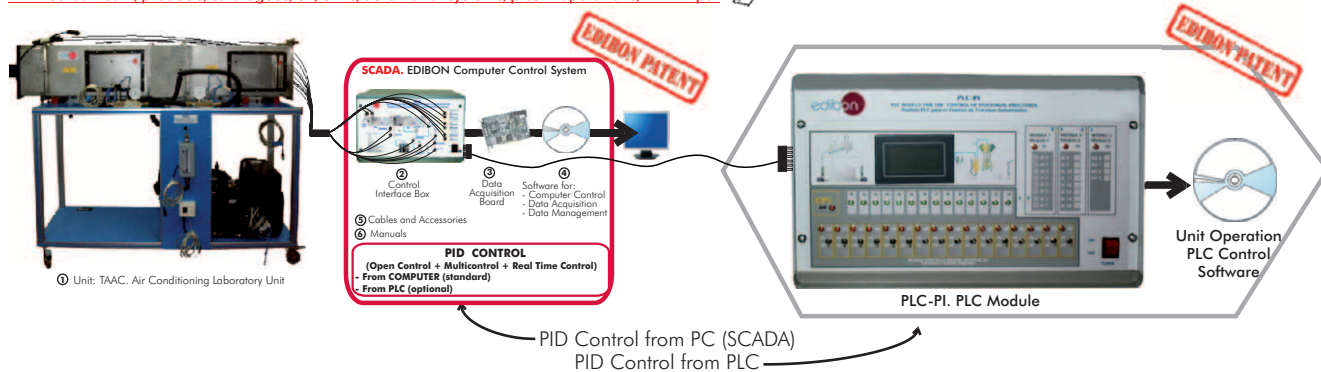
Thermodynamics & Thermotechnics control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

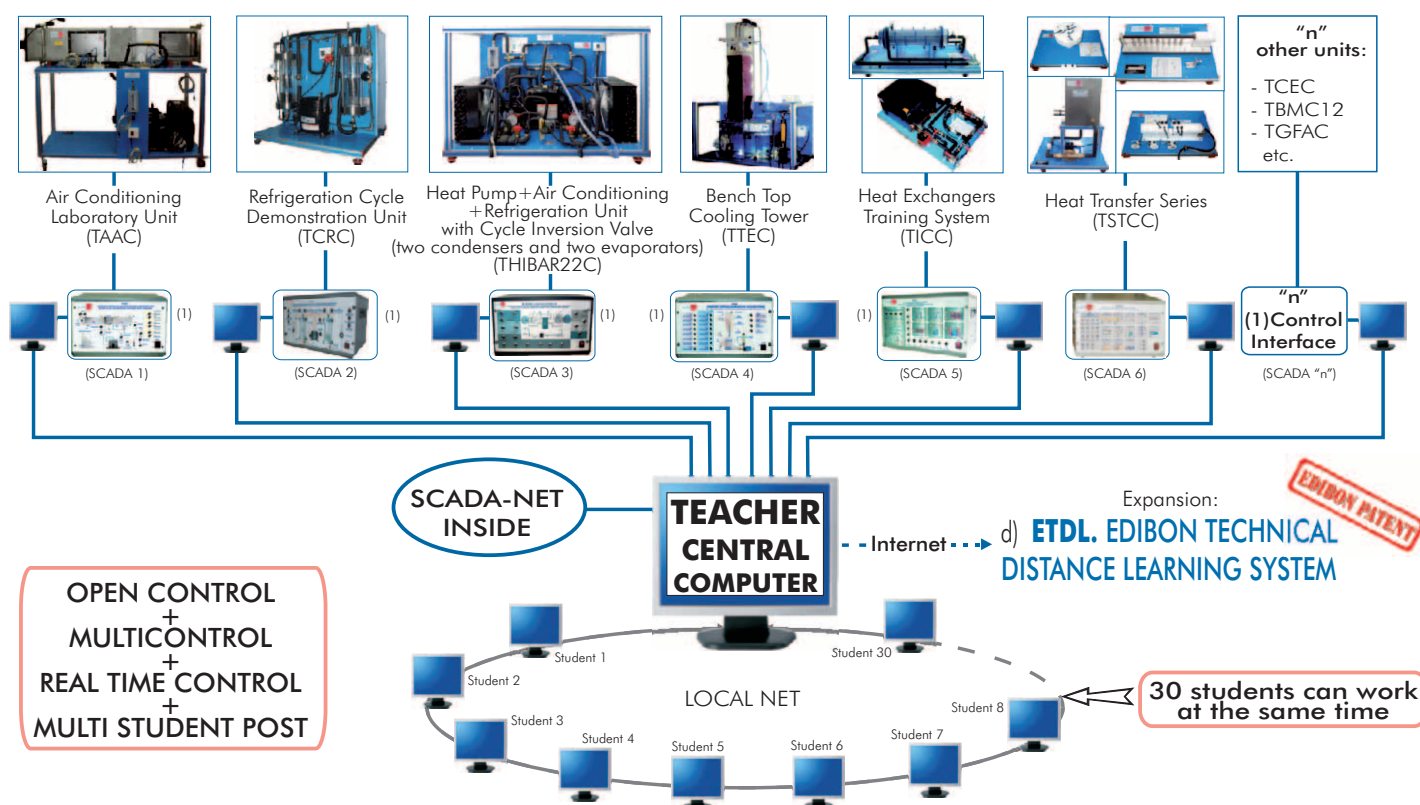


Units that can use Control from PC and PLC in this area:

TCRC, TRAC, TRCVC, THIBAR22C, THAR22C, THAR2LC, THAR2LC, THARA2C, THARLLC, THARALC, THARA2C/1, THARA2C/2, THALAC/1, TCPISC, TPVC, TPCC, TEVC, EACC, THB22C, THB2LC, THBL2C, THBA2C, THBLLC, THBALC, THB2AC, THBLAC, THBAAC, TBTC, TAAC, TARC, TAAUC, THAAAC, THALAC, THA2AC, TTEC, TICC, TSTCC, TRTC, TTLFC, TCEC, TCCC, TCLGC, TCPGC, TCLFC, TIFCC, TCMC, TFLVC, TIVAC, TFEC, TRLC, TSPC, TFUC, TEPGC, TFTC, TPTVC, TCESC, TVCC, TVPLC, TBMC3, TBMC8, TBMC12, TBMC75, TBMC-CG, TMSC, TDEGC, TMHC, TGDEC, TGDEPC, TGFAC, TTVC, HTVC.

c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/thermodynamics/thermotechnics/esn-thermodynamics/ESN-THERMODYNAMICS.pdf

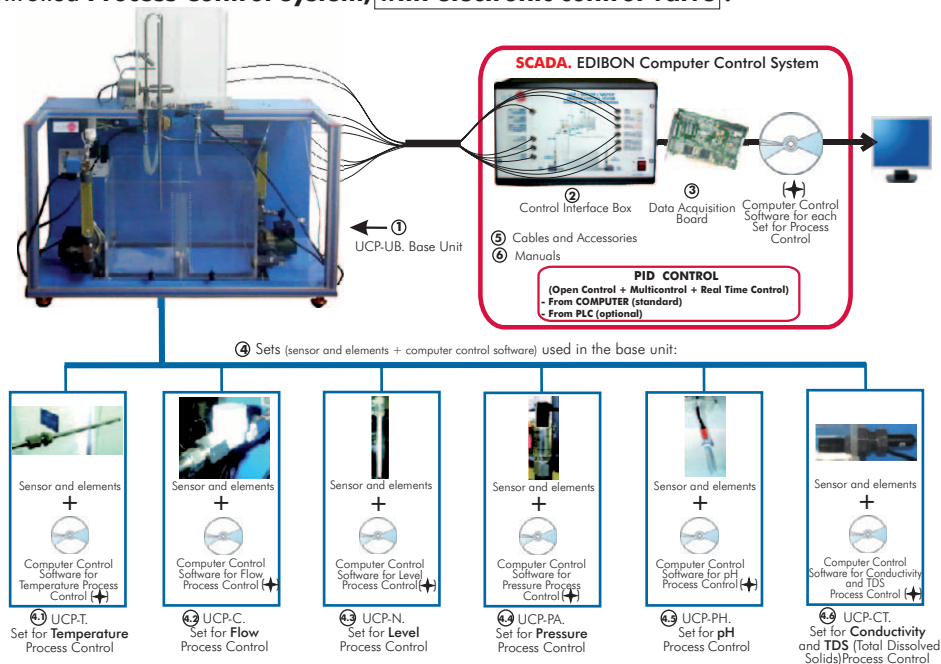


Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC's) or ESN-PLC (only PLC's) or ESN-PCPLC (PC's + PLC's).

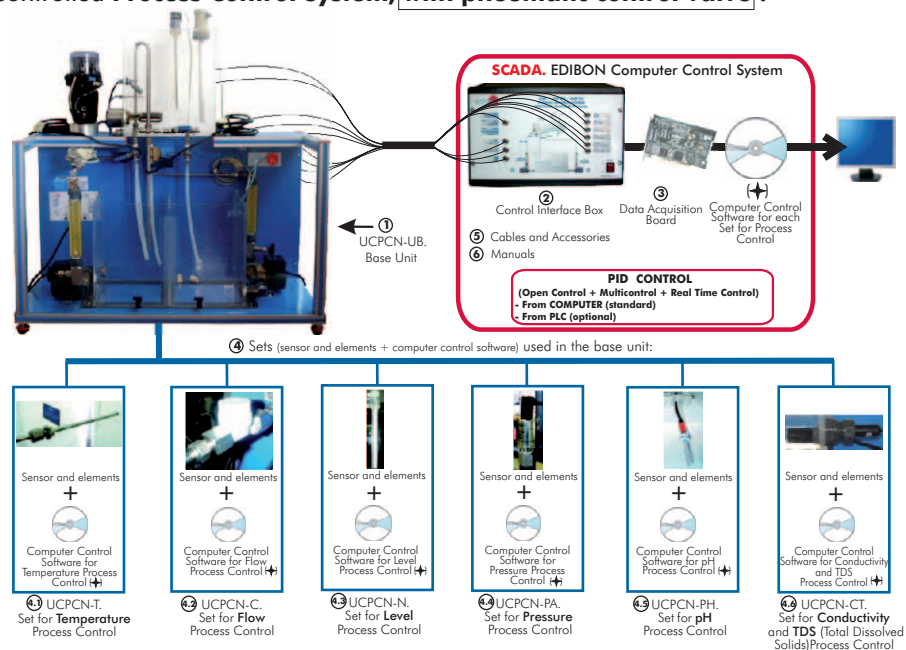
10.1- Process Control. Fundamentals

www.edibon.com/products/index.php?area=processcontrol&subarea=fundamentals&lang=en

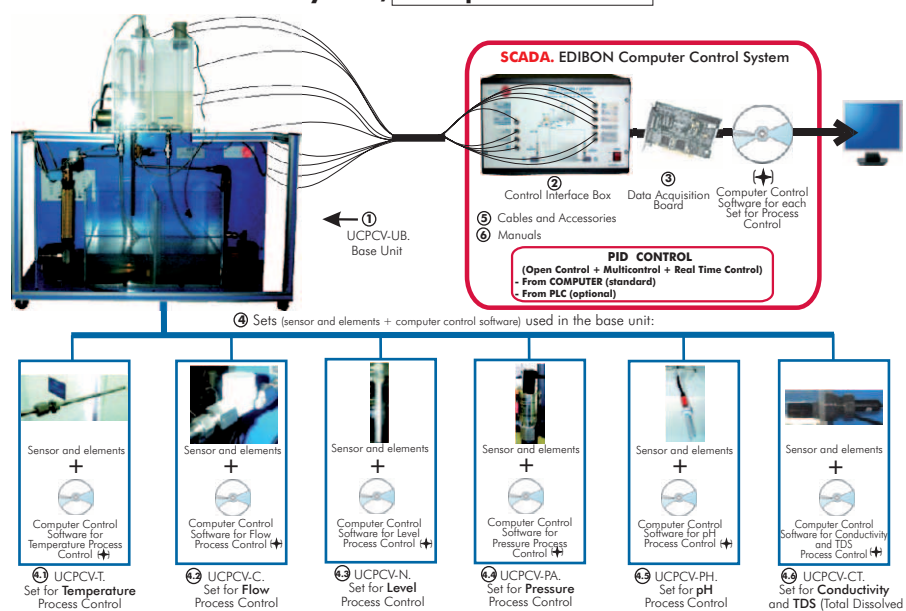
UCP. Computer Controlled Process Control System, with electronic control valve :



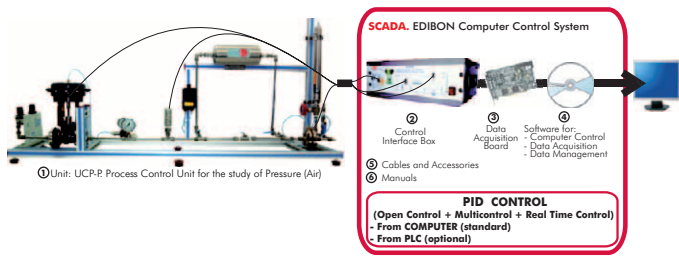
UCPCN. Computer Controlled Process Control System, with pneumatic control valve :



UCPCV. Computer Controlled Process Control System, with speed controller :



UCP-P. Computer Controlled Process Control Unit for the Study of Pressure (Air)

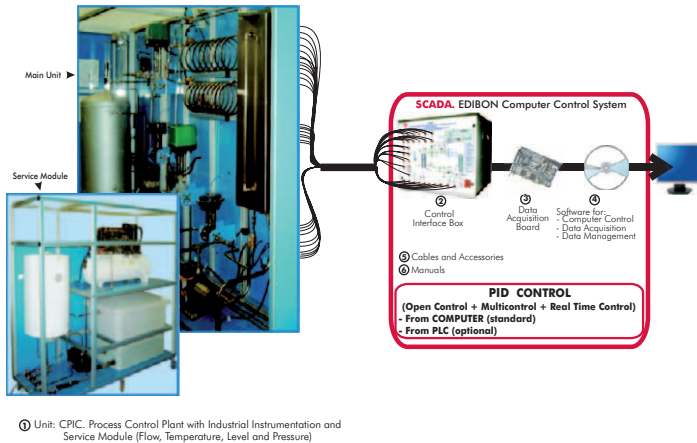


Other available Units:

- CECI. **Industrial Controllers Trainer** (see page 40)
- CRCI. **Industrial Controllers Networking** (see page 40)
- CEAB. **Trainer for Field Bus Applications** (see page 40)
- CEAC. **Controller Tuning Trainer** (see page 40)

10.2- Industrial Process Control

CPIC. Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (Flow, Temperature, Level and Pressure)

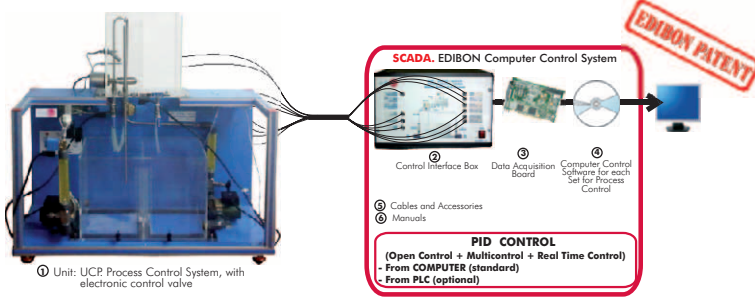


Other available Units:

- CPIC-C. **Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Flow)**
- CPIC-T. **Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Temperature)**
- CPIC-N. **Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Level)**
- CPIC-P. **Computer Controlled Process Control Plant with Industrial Instrumentation and Service Module (only Pressure)**

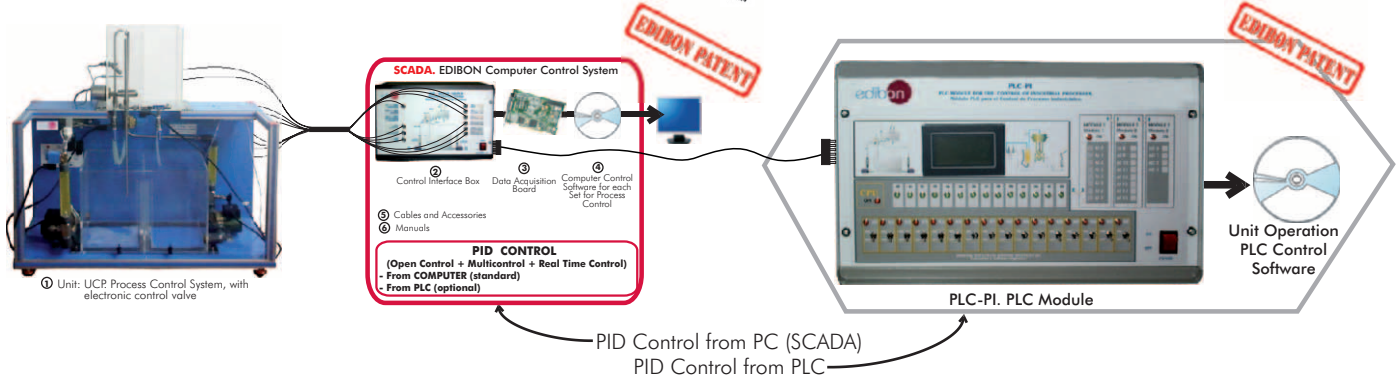
Process Control control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

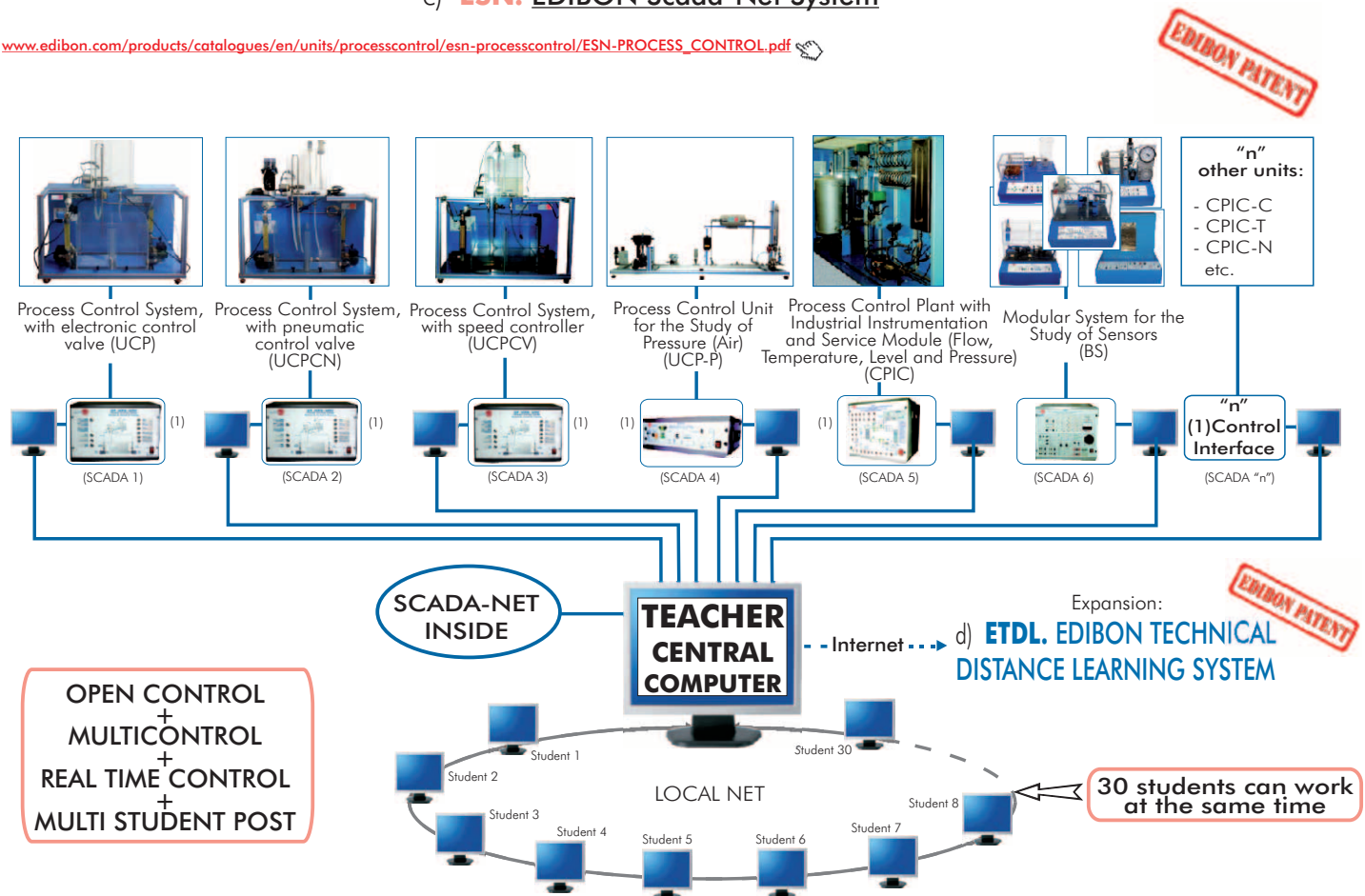


Units that can use Control from PC and PLC in this area:

UCP, UCPCN, UCPCV, UCP-P, CPIC, CPIC-C, CPIC-T, CPIC-N, CPIC-P.

c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/processcontrol/esn-processcontrol/ESN-PROCESS_CONTROL.pdf

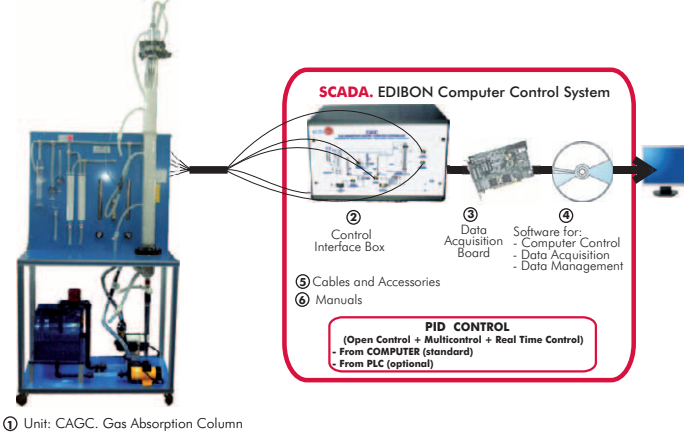


Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC 's) or ESN-PLC (only PLC 's) or ESN-PCPLC (PC 's + PLC 's).

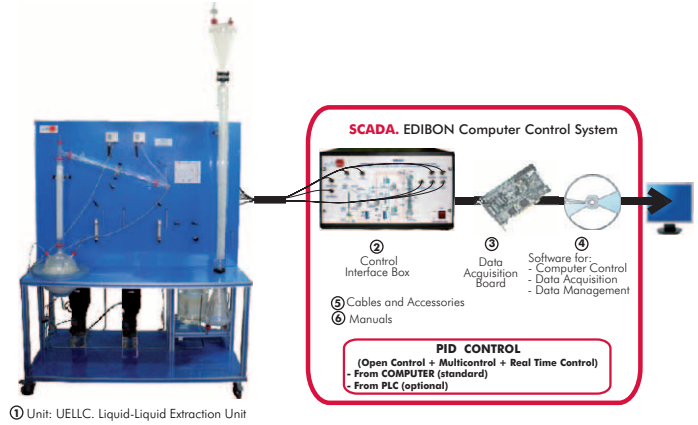
11.1- Chemical Engineering (Basic)

www.edibon.com/products/index.php?area=chemicalengineering&subarea=chemicalengineeringbasic&lang=en

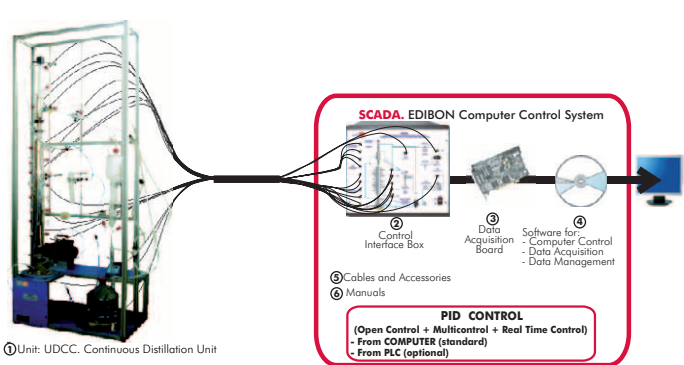
CAGC. Computer Controlled Gas Absorption Column *



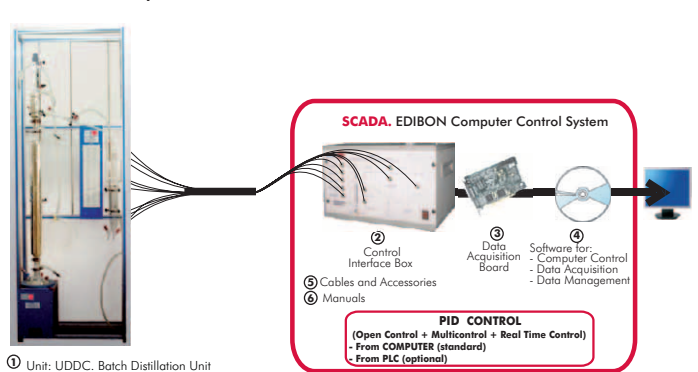
UELL. Computer Controlled Liquid-Liquid Extraction Unit *



UDCC. Computer Controlled Continuous Distillation Unit *



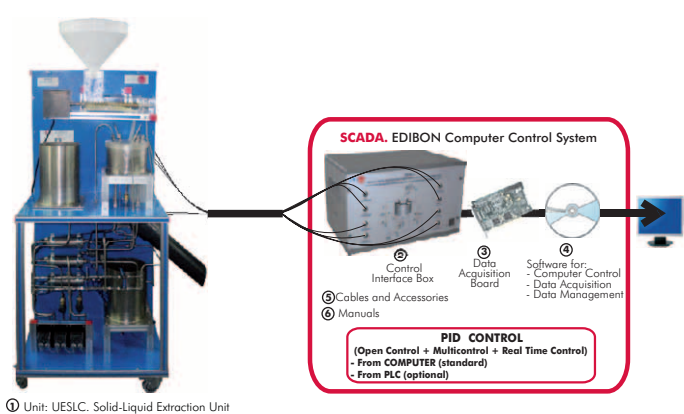
UDDC. Computer Controlled Batch Distillation Unit *



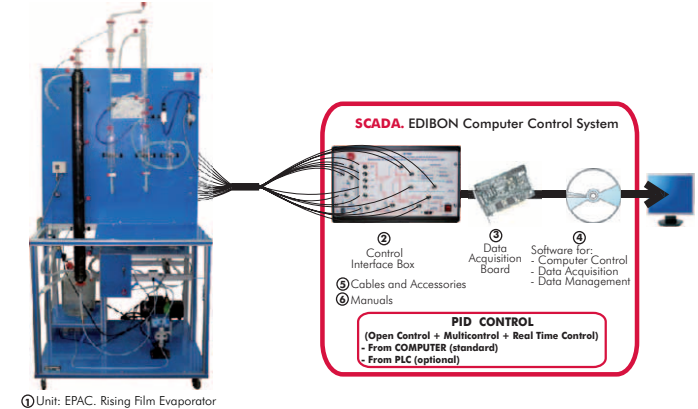
11.2- Chemical Engineering (General)

www.edibon.com/products/index.php?area=chemicalengineering&subarea=chemicalengineeringgeneral&lang=en

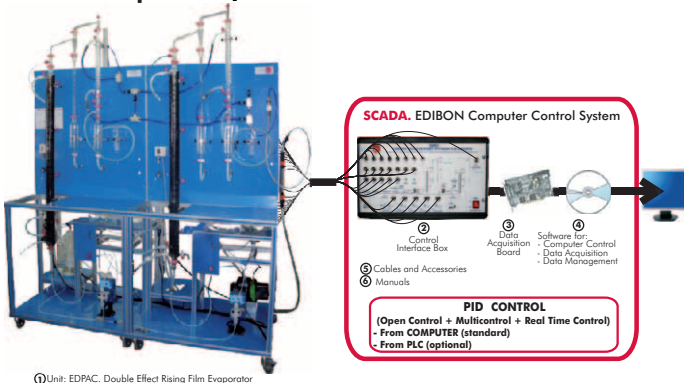
UESLC. Computer Controlled Solid-Liquid Extraction Unit *



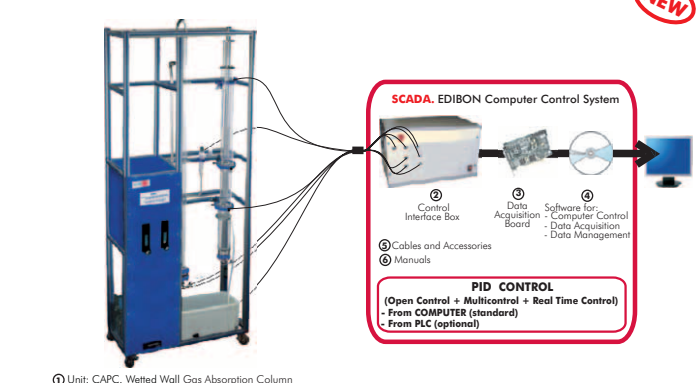
EPAC. Computer Controlled Rising Film Evaporator *



EDPAC. Computer Controlled Double Effect Rising Film Evaporator *



CAPC. Computer Controlled Wetted Wall Gas Absorption Column



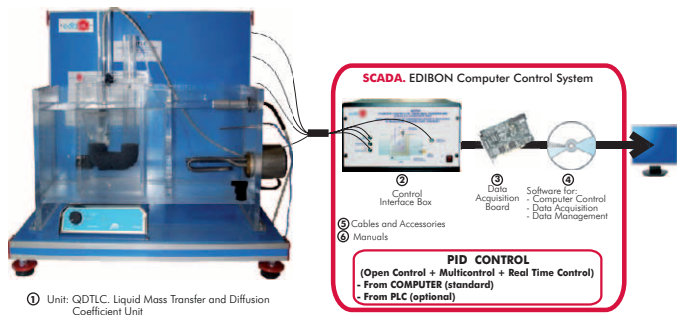
* Non computer controlled version available too.

www.edibon.com

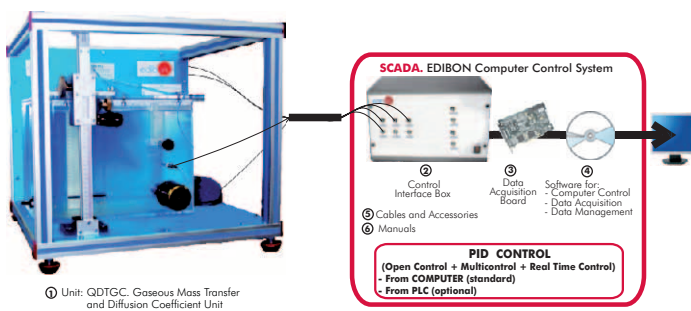
11.2- Chemical Engineering (General)

www.edibon.com/products/index.php?area=chemicalengineering&subarea=chemicalengineeringgeneral&lang=en

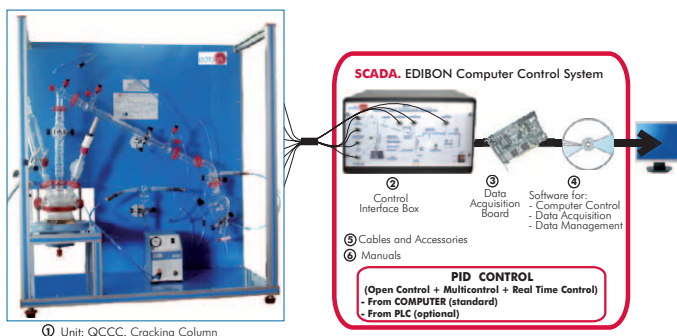
QDTLC. Computer Controlled Liquid Mass Transfer and Diffusion Coefficient Unit *



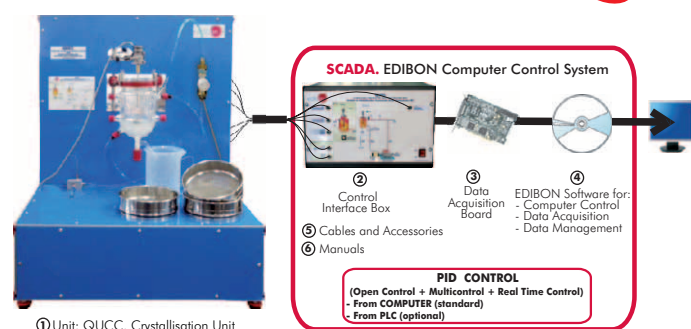
QDTGC. Computer Controlled Gaseous Mass Transfer and Diffusion Coefficient Unit *



QCCC. Computer Controlled Cracking Column



QUCC. Computer Controlled Crystallisation Unit * **NEW**



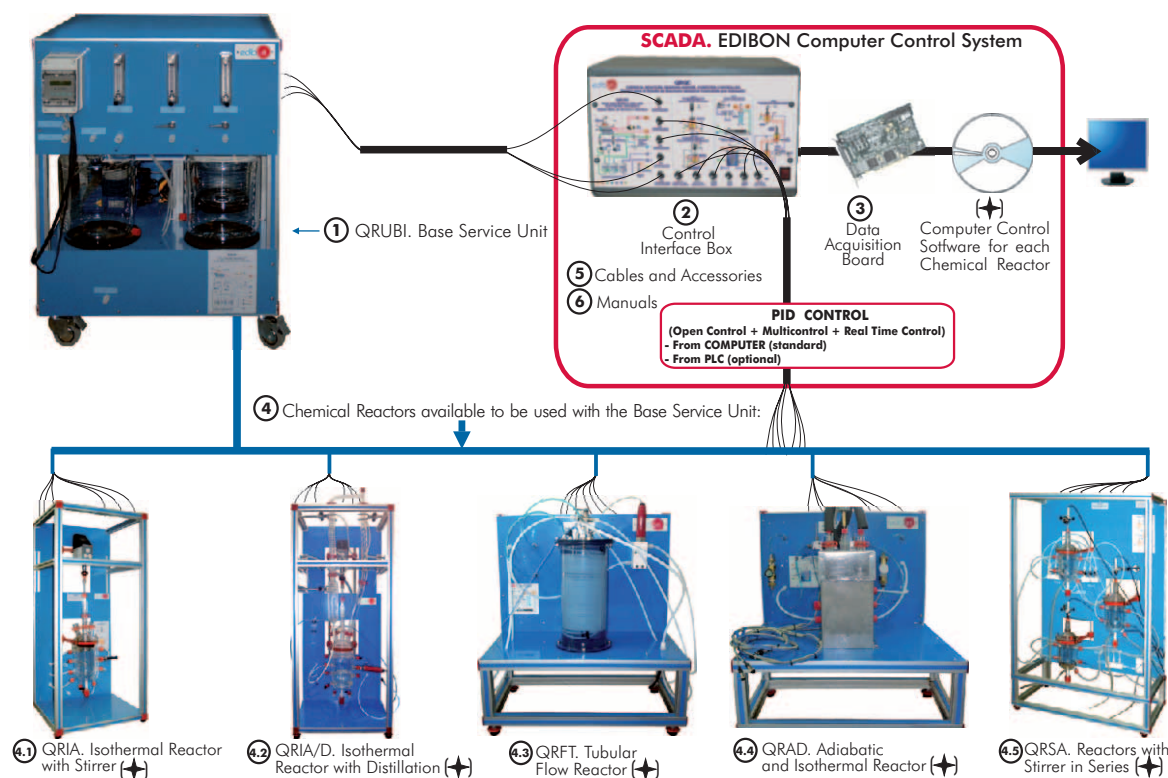
Other available Units: **NEW**

- QALFC. Computer Controlled Fixed Bed Adsorption Unit
- EPDC. Computer Controlled Falling Film Evaporator *
- EDPDC. Computer Controlled Double Effect Falling Film Evaporator *

11.3- Chemical Reactors

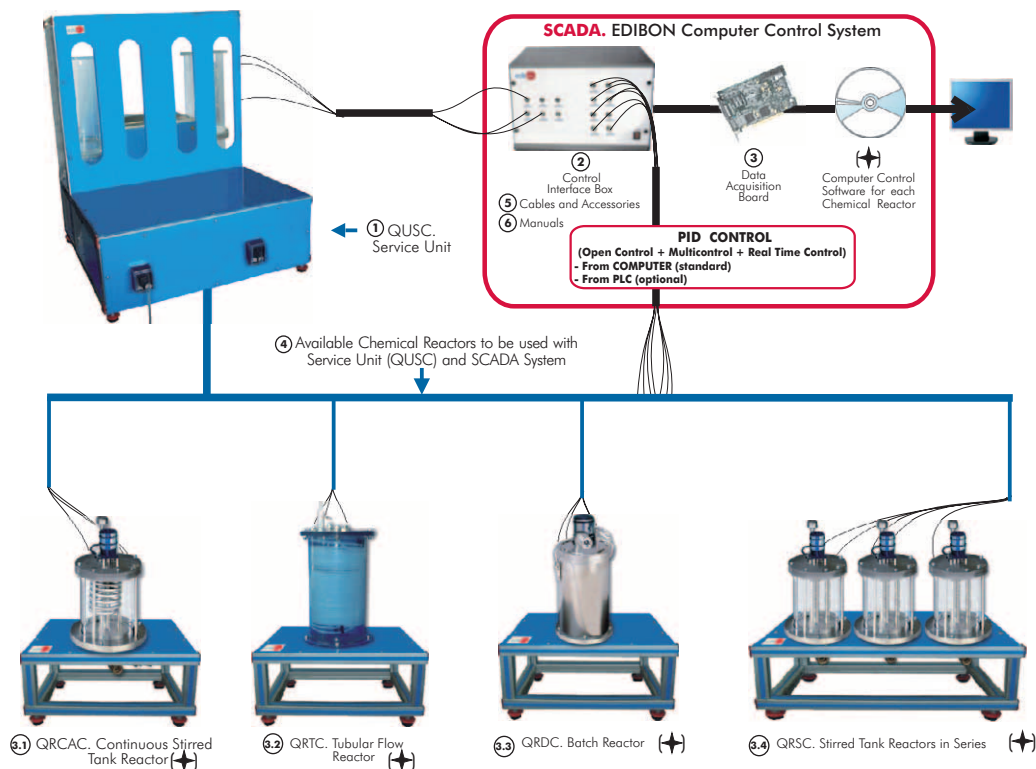
www.edibon.com/products/index.php?area=chemicalengineering&subarea=reactors&lang=en

QRQC. Computer Controlled Chemical Reactors Training System:



* Non computer controlled version available too.

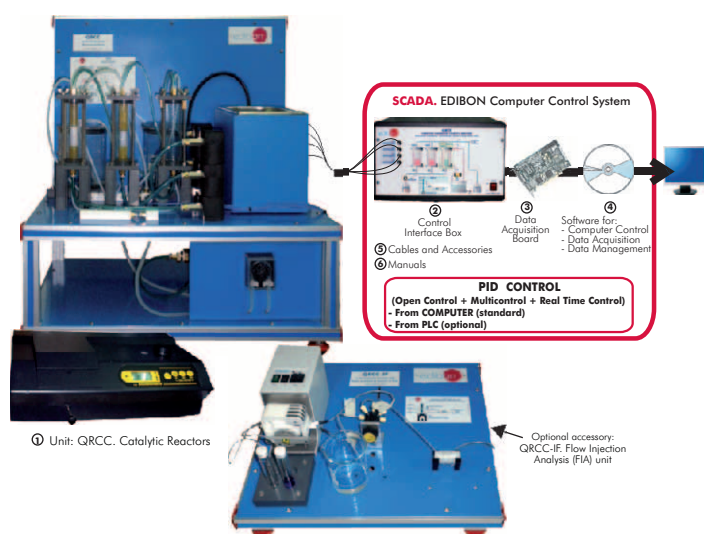
QRC. Computer Controlled Chemical Reactors Trainer: *



Other available Chemical Reactors **NEW**
to be used with the Unit (QUSC) and SCADA system:

- QRLC. **Laminar Flow Reactor**
- QRPC. **Plug Flow Reactor**

QRCC. Computer Controlled Catalytic Reactors * **NEW**



11.4- Chemical Process

www.edibon.com/products/index.php?area=chemicalengineering&subarea=chemicalprocess&lang=en

EMLS. **Liquid/Solid Mixing Unit**



ESED. **Sedimentation Study Unit**



EEC. **Corrosion Study Unit**



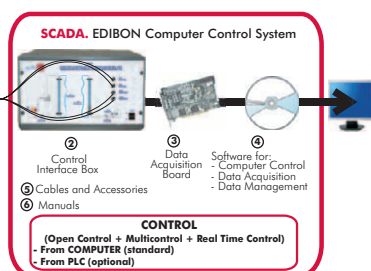
QMS. **Solids Handling Study Unit**



LFCC. **Computer Controlled Fixed and Fluidised Bed Unit ***



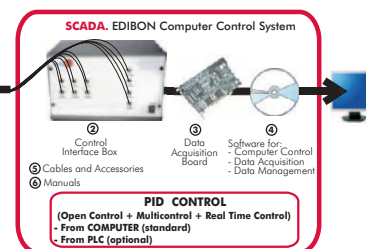
① Unit: LFCC. Fixed and Fluidised Bed Unit



QEDC. **Computer Controlled Batch Solvent Extraction and Desolventising Unit**



① Unit: QEDC. Batch Solvent Extraction and Desolventising Unit



Other available Units:

-TFUC. **Computer Controlled Continuous and Batch Filtration Unit *** (see page 62)

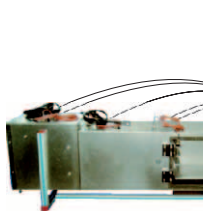
-EFLPC. **Computer Controlled Deep Bed Filter Unit *** (see page 79)

-EII. **Ion Exchange Unit** (see page 79)

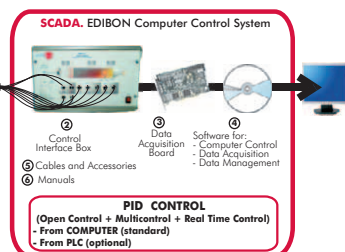
11.5- Chemical Process (Agronomical Industry)

www.edibon.com/products/index.php?area=chemicalengineering&subarea=agronomicalindustry&lang=en

SBANC. **Computer Controlled Tray Drier**



① Unit: SBANC. Tray Drier

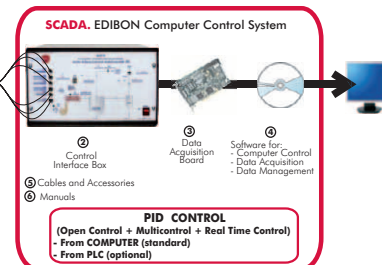


SSPC. **Computer Controlled Spray Drier ***

NEW



① Unit: SSPC. Spray Drier



11.6- Chemical Process (Special)

www.edibon.com/products/index.php?area=chemicalengineering&subarea=chemicalprocessspecial&lang=en

Available Units:

-EPIRC. **Computer Controlled Pyrolysis Unit**

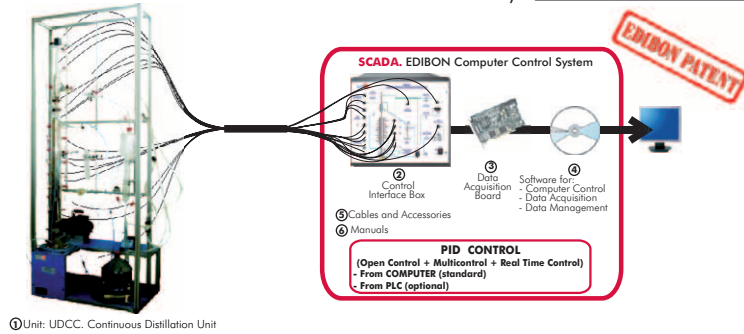
-PLGC. **Computer Controlled Gas Washing Process Plant**

-PPDAC. **Computer Controlled Water Demineralization and Processing Plant**

* Non computer controlled version available too.

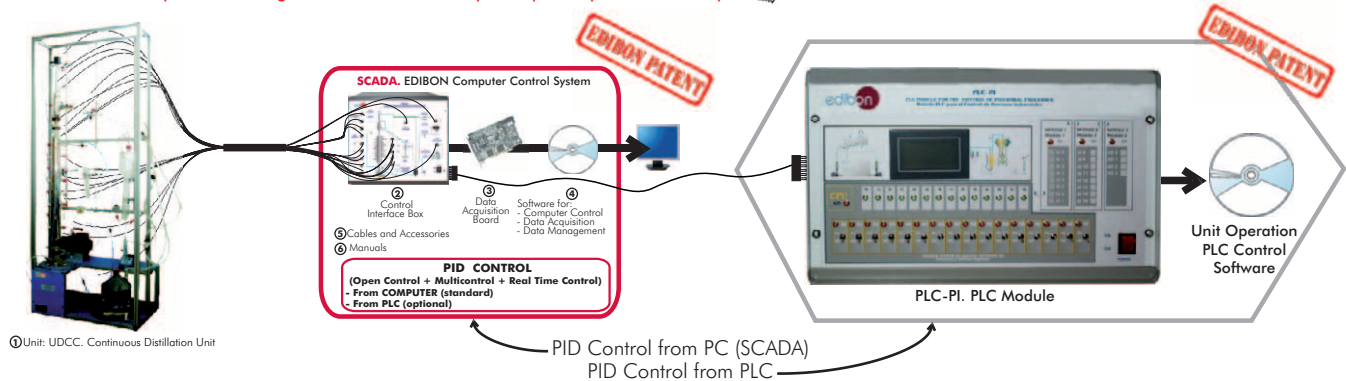
Chemical Engineering control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

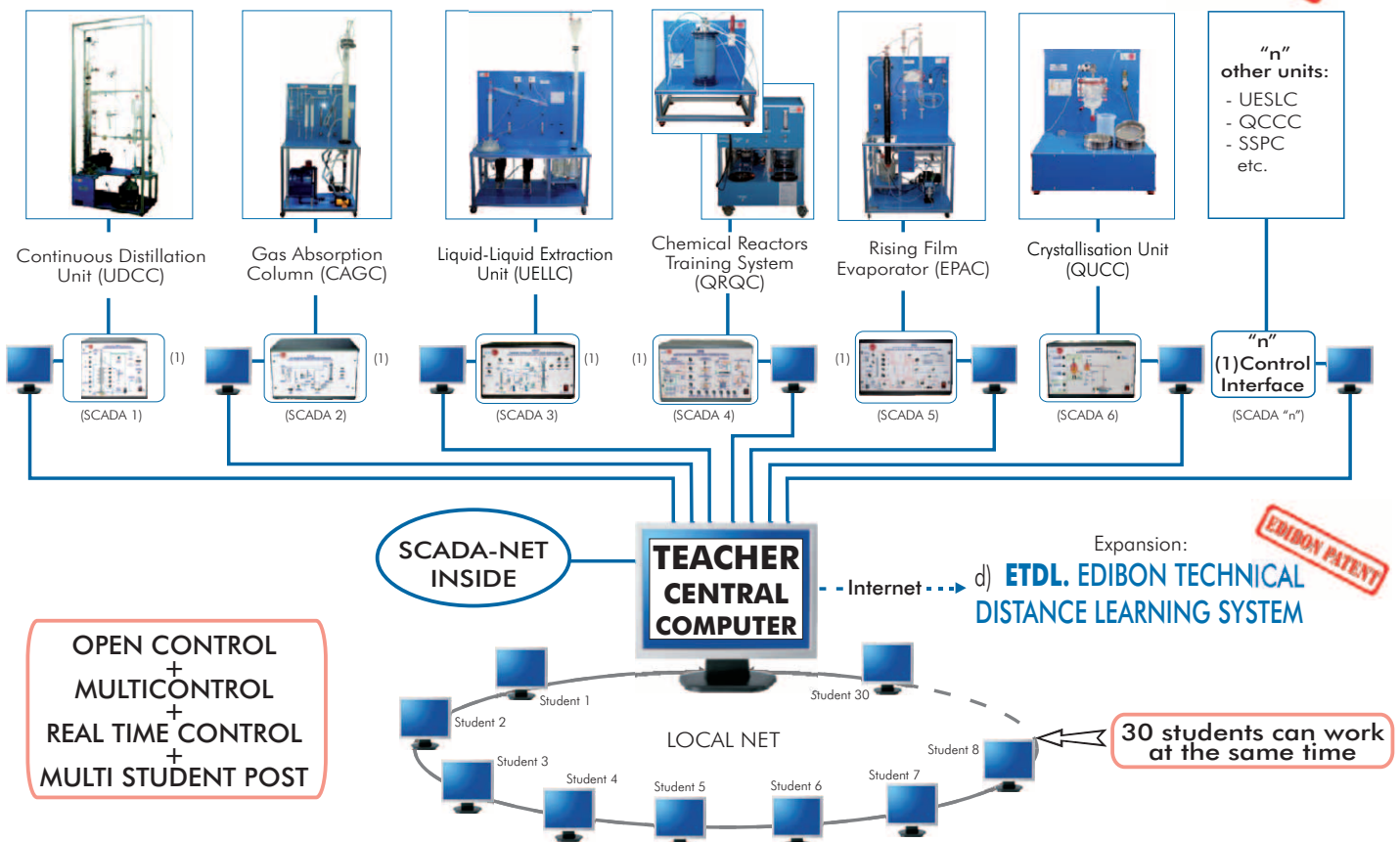


Units that can use Control from PC and PLC in this area:

CAGC, UELLC, UDCC, UDDC, UESLC, EPAC, CAPC, QDTLC, QDTGC, QCCC, QUCC, EPDC, EDPDC, QALFC, QRQC, QRC, QRCC, LFFC, QEDC, TFUC, EFLPC, SBANC, SSPC, EPIRC, PLGC, PPAC.

c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/chemicalengineering/esn-chemicalengineering/ESN-CHEMICAL_ENGINEERING.pdf

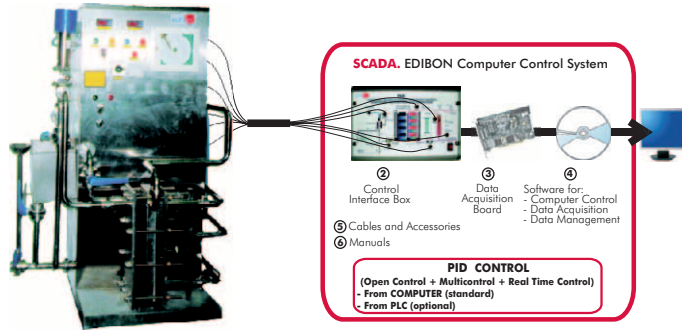


Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC's) or ESN-PLC (only PLC's) or ESN-PCPLC (PC's + PLC's).

12.1- Food Technology (Basic)

www.edibon.com/products/index.php?area=foodwatertechnologies&subarea=foodtechnologybasic&lang=en

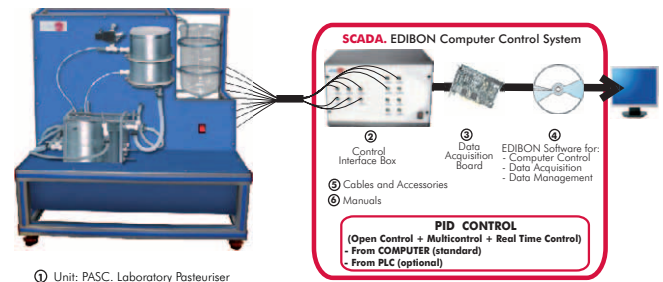
PADC. Computer Controlled Teaching Autonomous Pasteurization Unit



① Unit: PADC. Teaching Autonomous Pasteurization Unit

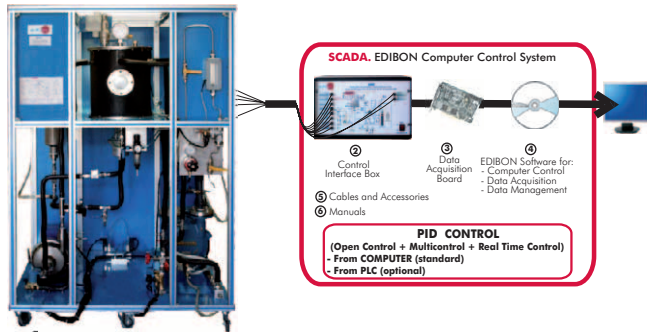
PASC. Computer Controlled Laboratory Pasteuriser

NEW



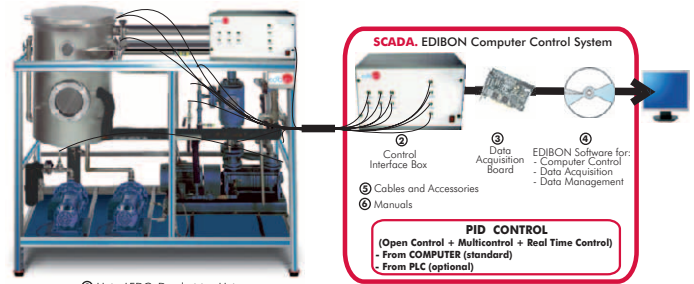
① Unit: PASC. Laboratory Pasteuriser

AEHC. Computer Controlled Hydrogenation Unit



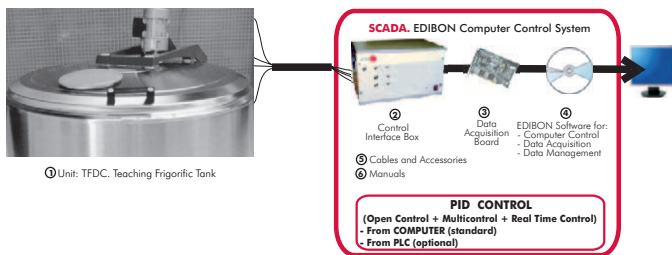
① Unit: AEHC. Hydrogenation Unit

AEDC. Computer Controlled Deodorising Unit



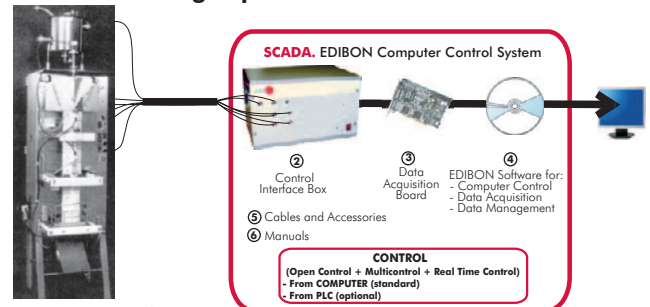
① Unit: AEDC. Deodorising Unit

TFDC. Computer Controlled Teaching Frigorific Tank



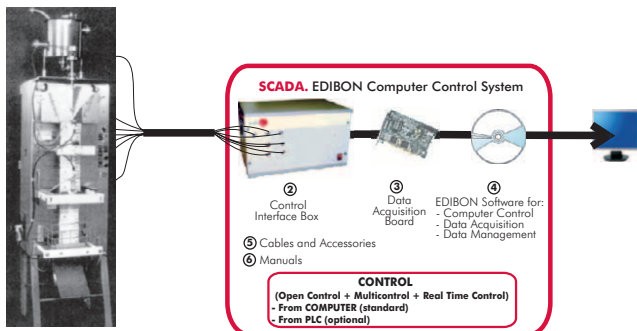
① Unit: TFDC. Teaching Frigorific Tank

EDLC. Computer Controlled Teaching Machine for Putting in Plastic Packing Liquids



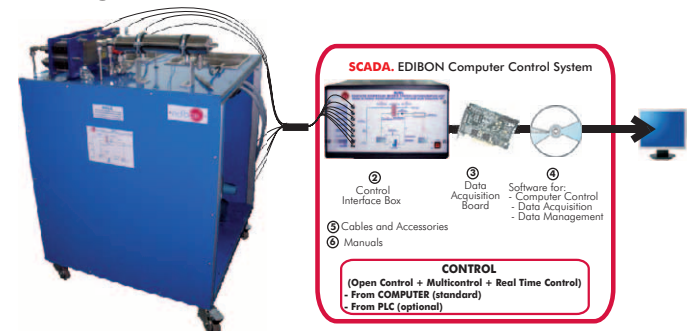
① Unit: EDLC. Teaching Machine for Putting in Plastic Packing Liquids

EDSC. Computer Controlled Teaching Machine for Putting into a Container Solids



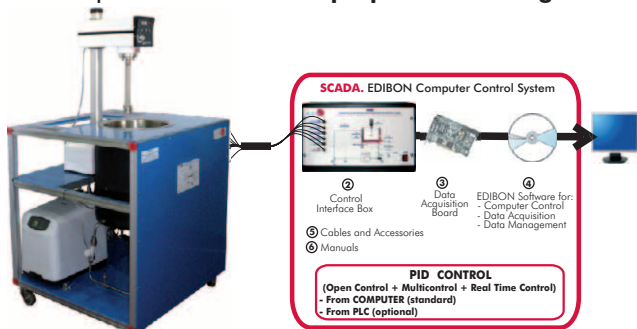
① Unit: EDSC. Teaching Machine for Putting into a Container Solids

ROUC. Computer Controlled Reverse Osmosis/Ultrafiltration Unit



① Unit: ROUC. Reverse Osmosis/Ultrafiltration Unit

VPMC. Computer Controlled Multipurpose Processing Vessel



① Unit: VPMC. Multipurpose Processing Vessel

Other available Units: **NEW**

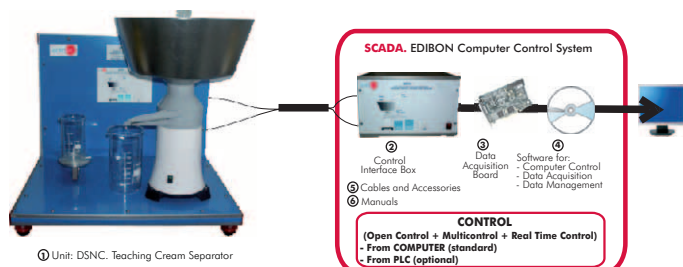
- AFPMC. Computer Controlled Plate and Frame Filter Press
- SBANC. Computer Controlled Tray Drier (see page 73)
- SSPC. Computer Controlled Spray Drier * (see page 73)
- TPCC. Computer Controlled Contact Plate Freezer (see page 56)

* Non computer controlled version available too.

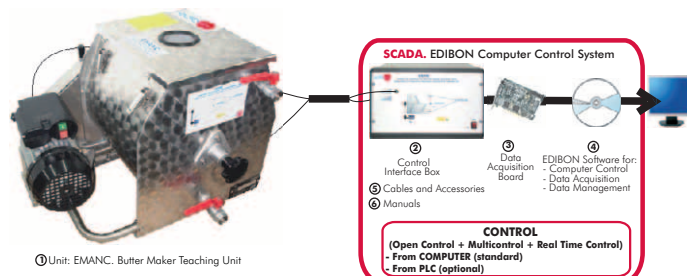
12.2- Food Technology (Milk)

www.edibon.com/products/index.php?area=foodwatertechnologies&subarea=foodtechnologymilk&lang=en

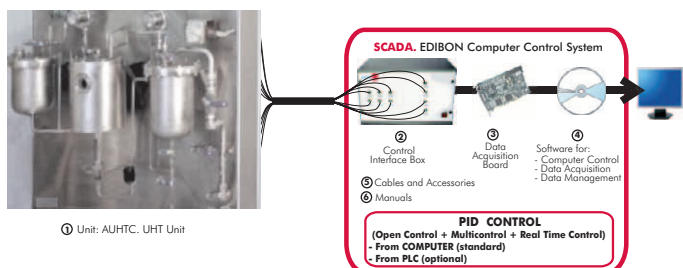
DSNC. Computer Controlled Teaching Cream Separator *



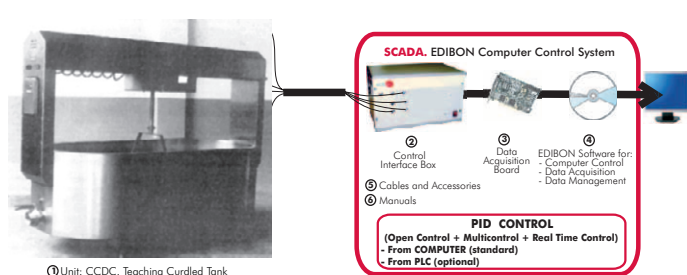
EMANC. Computer Controlled Butter Maker Teaching Unit *



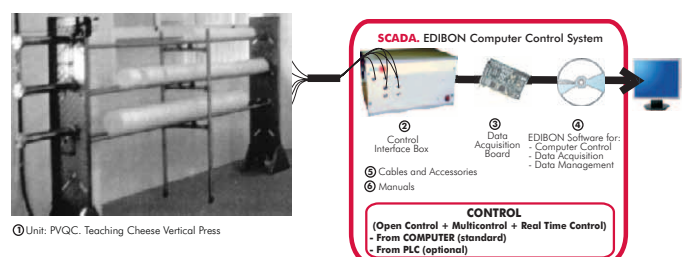
AUHTC. Computer Controlled UHT Unit



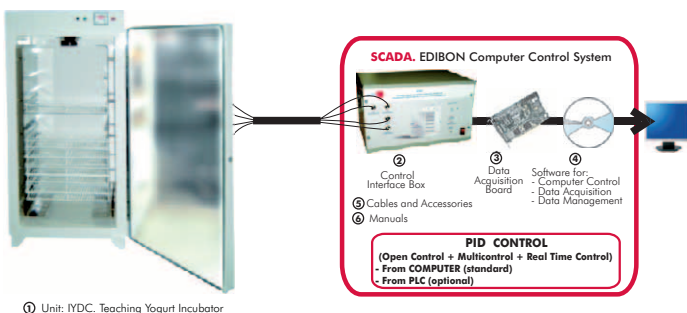
CCDC. Computer Controlled Teaching Curdled Tank



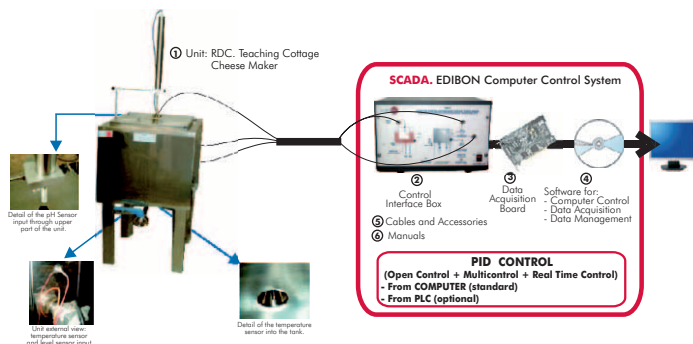
PVQC. Computer Controlled Teaching Cheese Vertical Press



IYDC. Computer Controlled Teaching Yogurt Incubator



RDC. Computer Controlled Teaching Cottage Cheese Maker



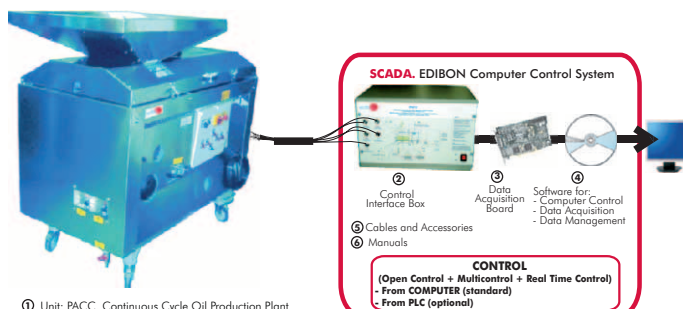
Other available Unit: **NEW**

- AEQC. Computer Controlled Cheese Vat & Cheese Macking Accesories
- PADC. Computer Controlled Teaching Autonomous Pasteurization Unit (see page 75)
- PASC. Computer Controlled Laboratory Pasteuriser (see page 75)
- FQDC. Computer Controlled Teaching Cheese Melter

12.3- Food Technology (Oil)

www.edibon.com/products/index.php?area=foodwatertechnologies&subarea=foodtechnologyoil&lang=en

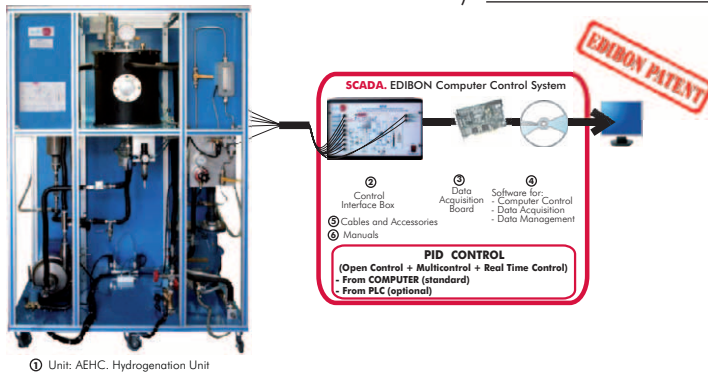
PACC. Computer Controlled Continuous Cycle Oil Production Plant



* Non computer controlled version available too.

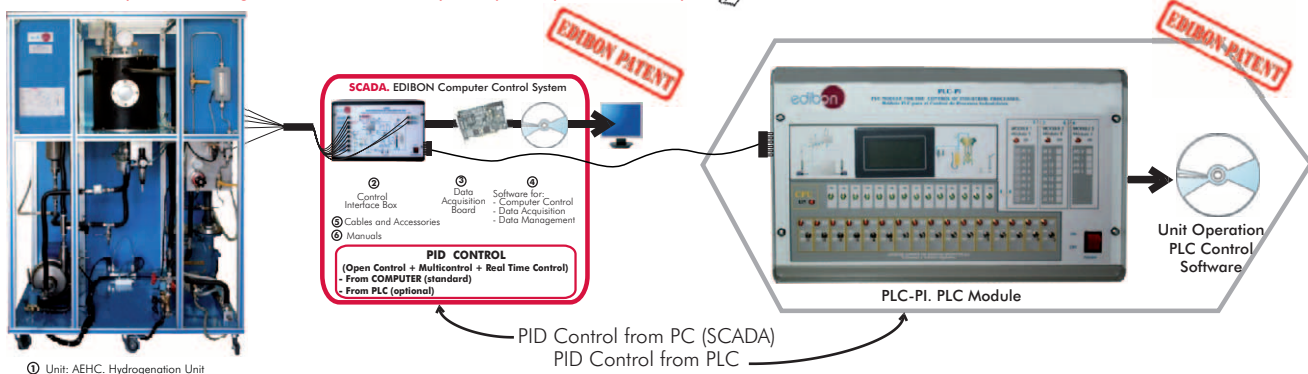
Food & Water Technologies control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

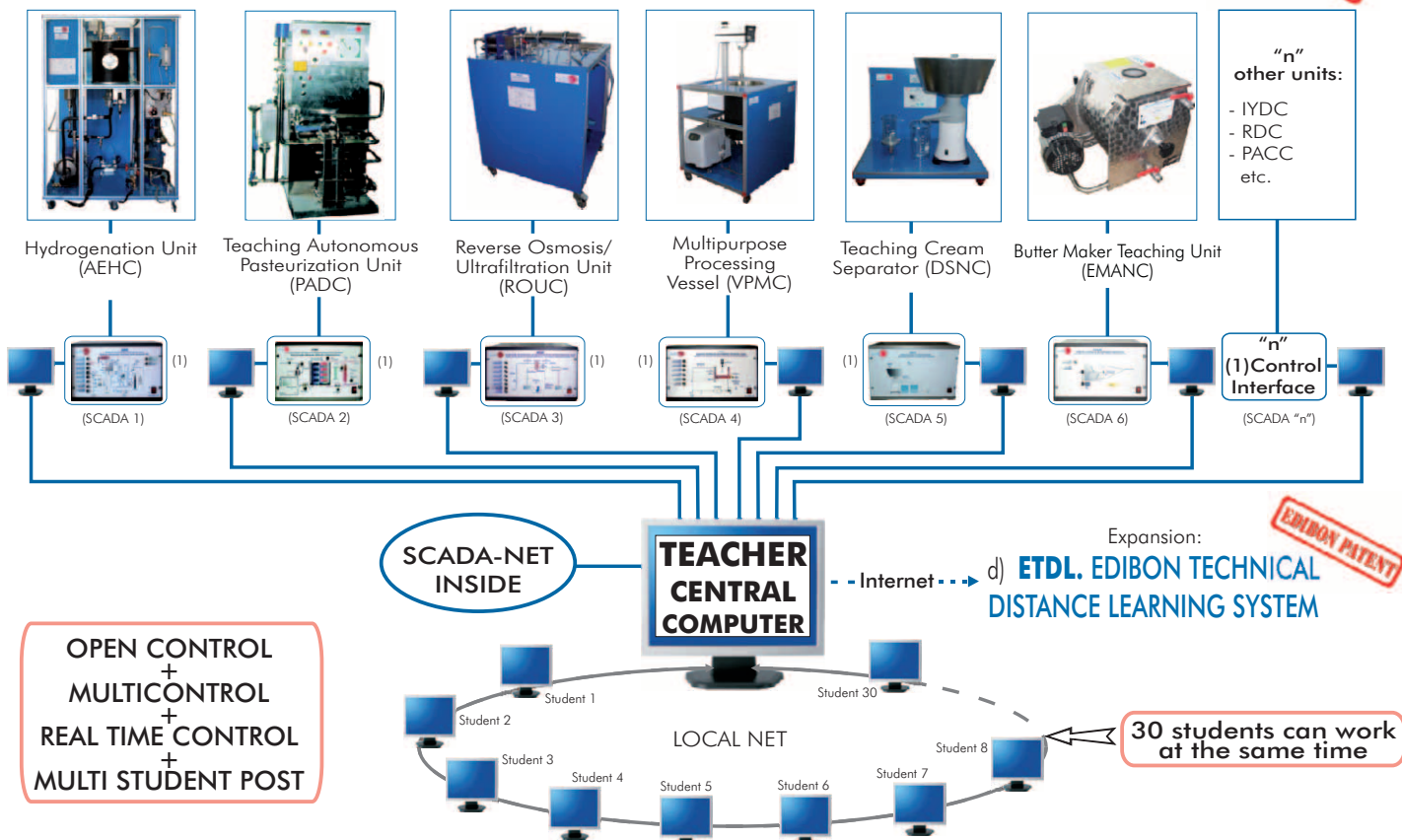


Units that can use Control from PC and PLC in this area:

PADC, PASC, AEHC, AEDC, TFDC, EDLC, EDSC, ROUC, VPMC, AFPMC, SBANC, SSPC, TPCC, DSN, EMANC, AUHTC, CCDC, PVQC, IYDC, RDC, AEQC, FQDC, PACC.

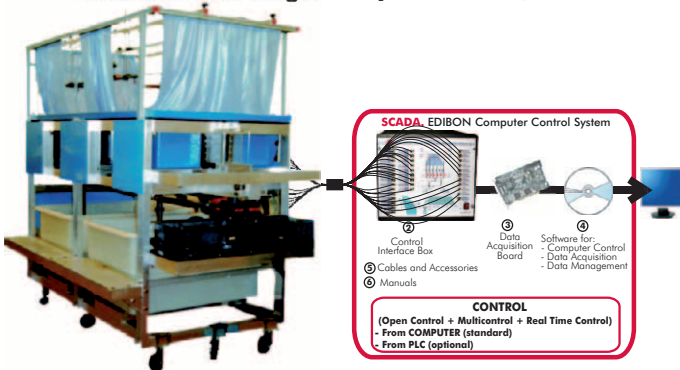
c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/foodwatertechnologies/esn-foodtechnology/ESN-FOOD_TECHNOLOGY.pdf



Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC's) or ESN-PLC (only PLC's) or ESN-PCPLC (PC's + PLC's).

ESHC. Computer Controlled Hydrologic Systems, Rain Simulator and Irrigation Systems Unit *

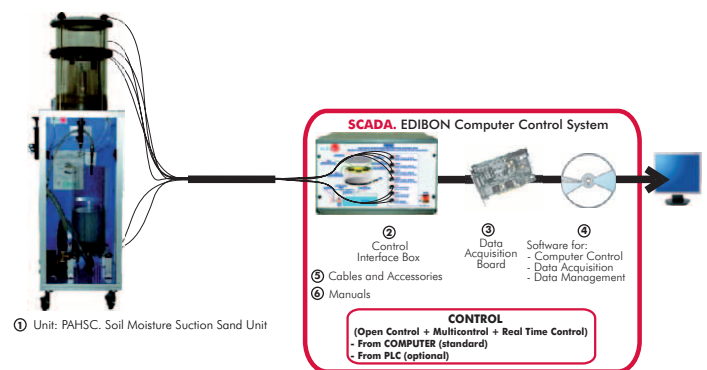


① Unit: ESHC. Hydrologic Systems, Rain Simulator and Irrigation Systems Unit

Available versions:

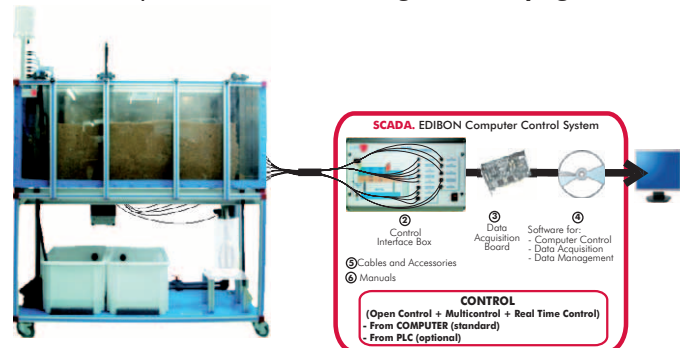
- ESHC (2x1 m). Hydrologic Systems, Rain Simulator and Irrigation Systems Unit (2x1 m).
- ESHC (4x2 m). Hydrologic Systems, Rain Simulator and Irrigation Systems Unit (4x2 m).

PAHSC. Computer Controlled Soil Moisture Suction Sand Unit *



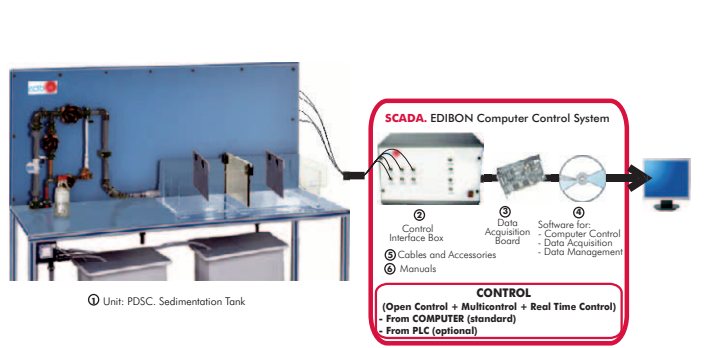
① Unit: PAHSC. Soil Moisture Suction Sand Unit

PDFDC. Computer Controlled Drainage and Seepage Tank *



① Unit: PDFDC. Drainage and Seepage Tank

PDSC. Computer Controlled Sedimentation Tank *



① Unit: PDSC. Sedimentation Tank

PL. Demonstration Lysimeter



PPD. Drain Permeameter



PEIF. Filterability Index Unit



PEFP. Permeability/Fluidisation Studies Unit



Other available Unit:

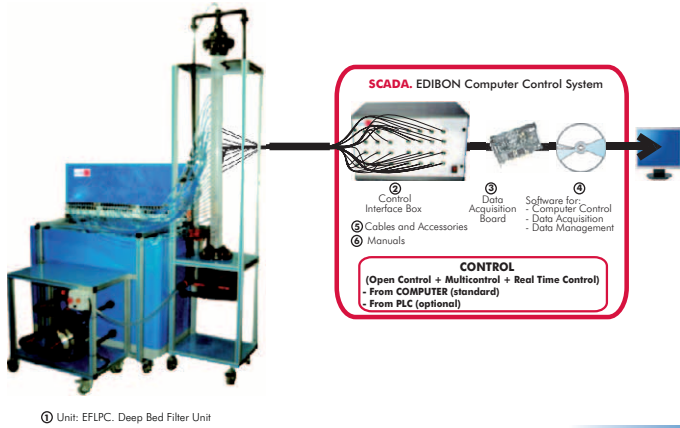
- HVFLM. Mobile Bed and Flow Visualisation Unit

NEW

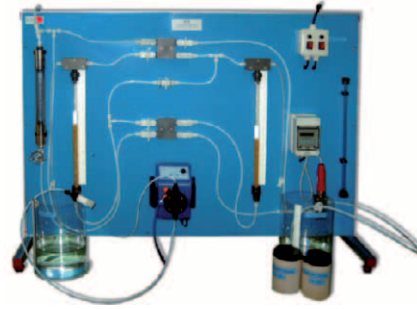
13.2- Water Treatment

www.edibon.com/products/index.php?area=environment&subarea=watertreatment&lang=en

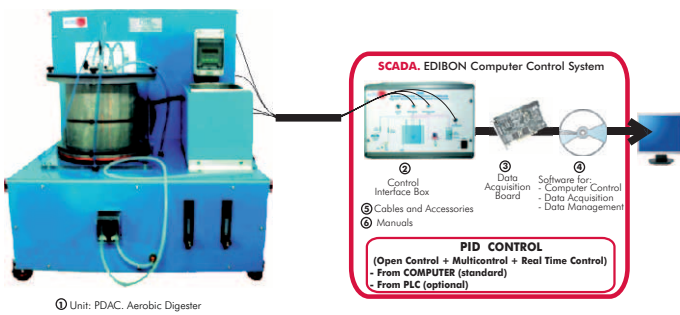
EFLPC. Computer Controlled Deep Bed Filter Unit *



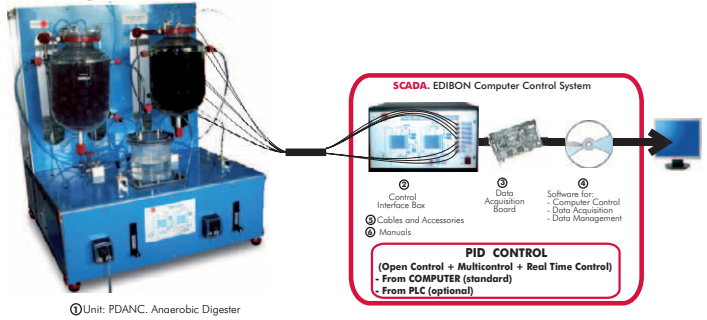
EII. Ion Exchange Unit



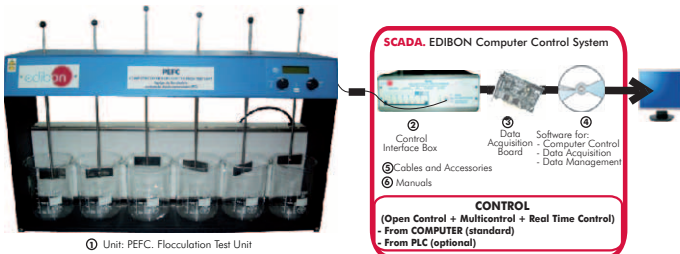
PDAC. Computer Controlled Aerobic Digester *



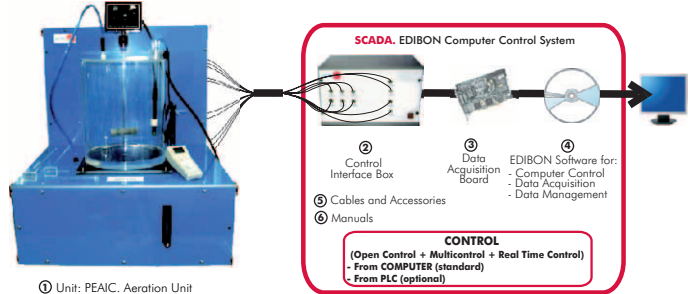
PDANC. Computer Controlled Anaerobic Digester *



PEFC. Computer Controlled Flocculation Test Unit *



PEAIC. Computer Controlled Aeration Unit *



Other available Unit: **NEW**

-PPTAC. Computer Controlled Water Treatment Plant

-ROUC. Computer Controlled Reverse Osmosis/Ultrafiltration Unit (see page 75)

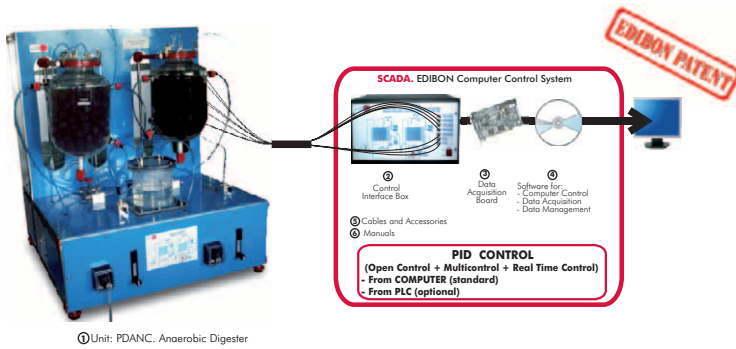
13.3- Pollution (Ground)

www.edibon.com/products/index.php?area=environment&subarea=pollutionground&lang=en

* Non computer controlled version available too.

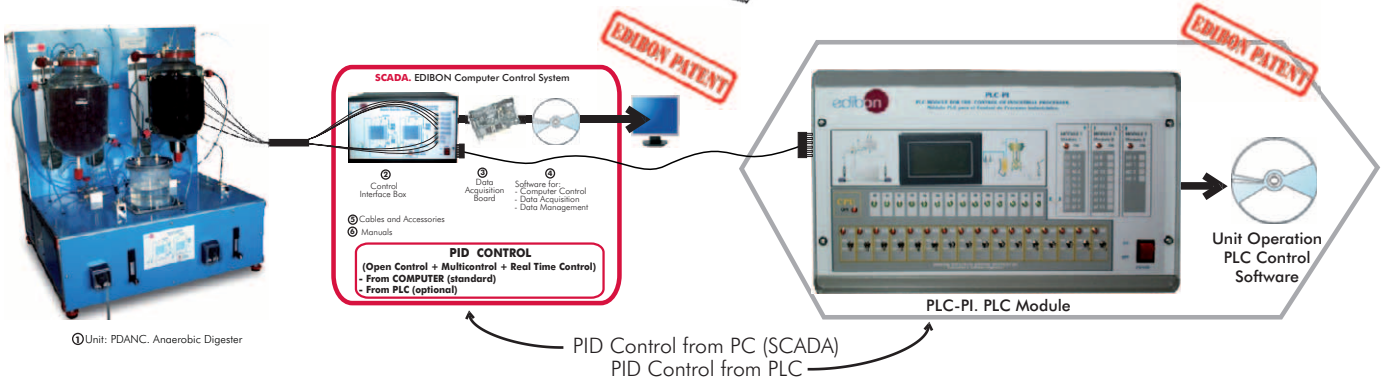
Environment control configurations possibilities

a) Control from PC (SCADA)



b) Control from PLC

www.edibon.com/products/catalogues/en/units/automationsystems/plcunitoperations/PLC-PI.pdf

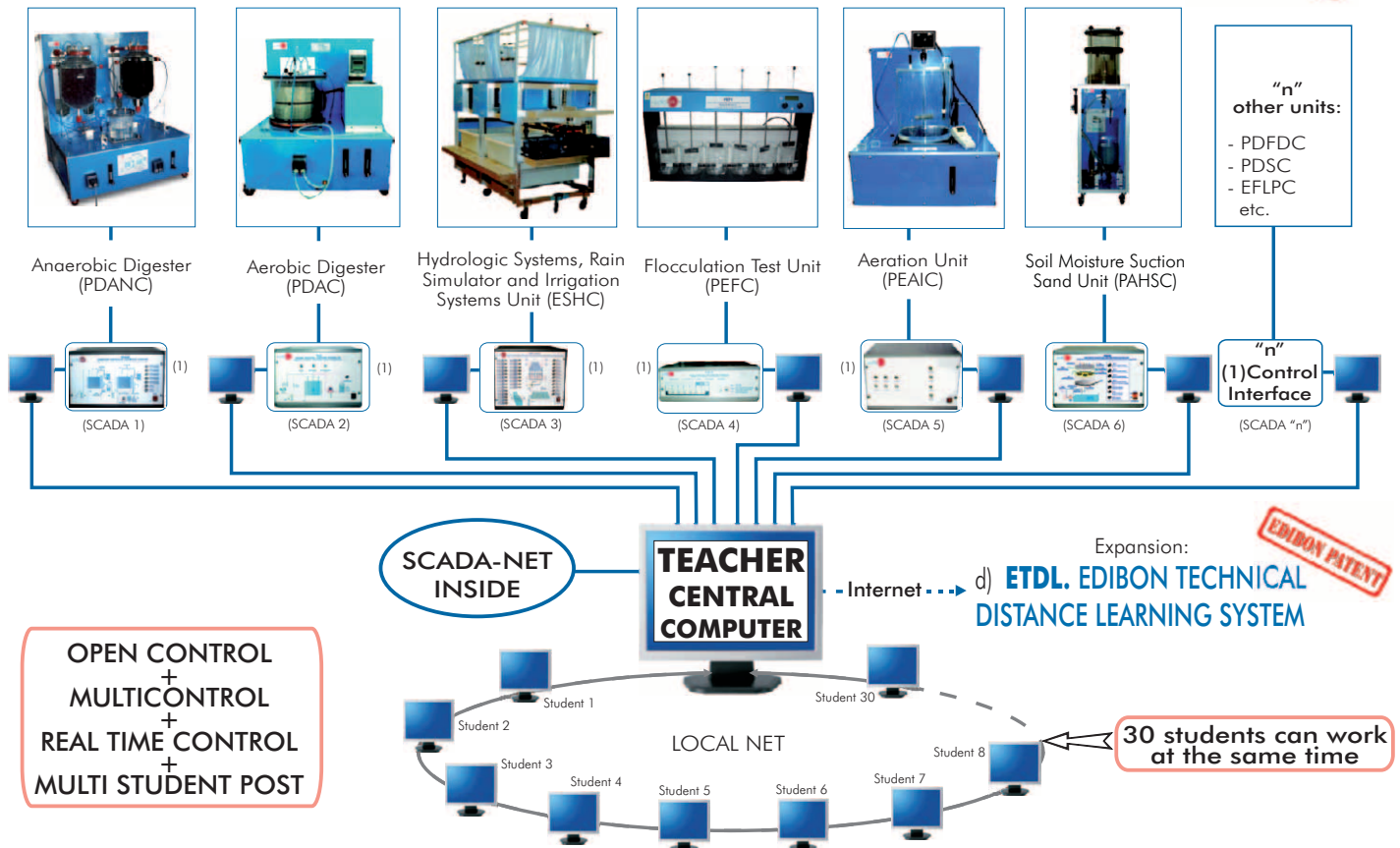


Units that can use Control from PC and PLC in this area:

ESHC, PAHSC, PDFDC, PDSC, HVFLM, EFLPC, PDAC, PDANC, PEFC, PEAIC, ROUC, PPTAC.

c) ESN. EDIBON Scada-Net System

www.edibon.com/products/catalogues/en/units/environment/esn-environment/ESN-ENVIRONMENT.pdf



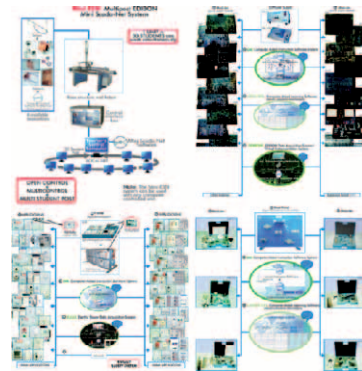
Note: The ESN system can use any EDIBON computer controlled unit, in all the 3 options as ESN-PC (only PC's) or ESN-PLC (only PLC's) or ESN-PCPLC (PC's + PLC's).

> Physics

1SE. Secondary Education



1AD. Advanced Physics Laboratory



> Electronics

2TV. Technical and Vocational Education Electronics Laboratory



2HE. Higher Education Electronics Laboratory



> Telecommunications

3TV. Technical and Vocational Education Telecommunications Laboratory



3HE. Higher Education Telecommunications Laboratory



> Electricity

4TV. Technical and Vocational Education Electricity Laboratory



4HE. Higher Education Electricity Laboratory



4EMTV. Technical and Vocational Education Electrical Machines Laboratory



4EMAD. Advanced Electrical Machines Laboratory

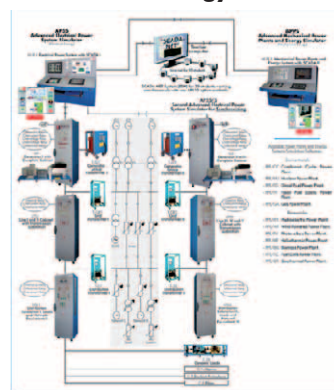


► Energy

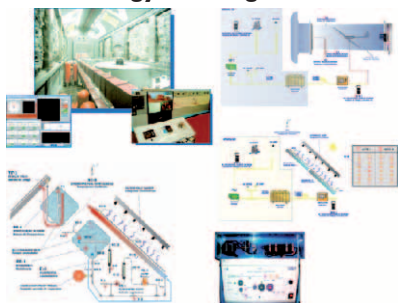
5TV. Technical and Vocational Education Energy Laboratory



5AD. Advanced Energy Laboratory



5TC. Energy Training Center



► Renewable Energy

5RTV. Technical and Vocational Education Renewable Energy Laboratory



5RAD. Advanced Renewable Energy Laboratory



► Automation and Systems

6TV. Technical and Vocational Education Automation and Systems Laboratory



6AD. Advanced Automation and Systems Laboratory



► Mechanics and Materials

7TV. Technical and Vocational Education Mechanics and Materials Laboratory



7HE. Higher Education Mechanics and Materials Laboratory



> Fluid Mechanics

8AD1. Fluid Mechanics Laboratory (Phase 1)



8AD2. Fluid Mechanics Laboratory (Phase 2)



8AD3. Fluid Mechanics Laboratory (Phase 3)



> Thermodynamics and Thermotechnics

9AD1. Thermodynamics and Thermotechnics Laboratory (Phase 1)



9AD2. Thermodynamics and Thermotechnics Laboratory (Phase 2)



9AD3. Thermodynamics and Thermotechnics Laboratory (Phase 3)



> Process Control

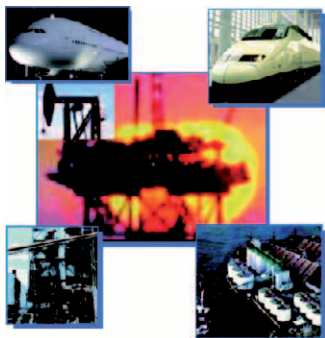
10G1. General Process Control Laboratory (Phase 1)



10G2. General Process Control Laboratory (Phase 2)



10PCTC. Process Control and Maintenance Training Center



10RC. Regulation, Control and Process Control Laboratory



> Chemical Engineering

11TV. Technical and Vocational Education Chemical Engineering Laboratory



11HE. Higher Education Chemical Engineering Laboratory



11PTC. Petroleum Training Center



Food Technology

12TV. Technical and Vocational Education Food Technology Laboratory

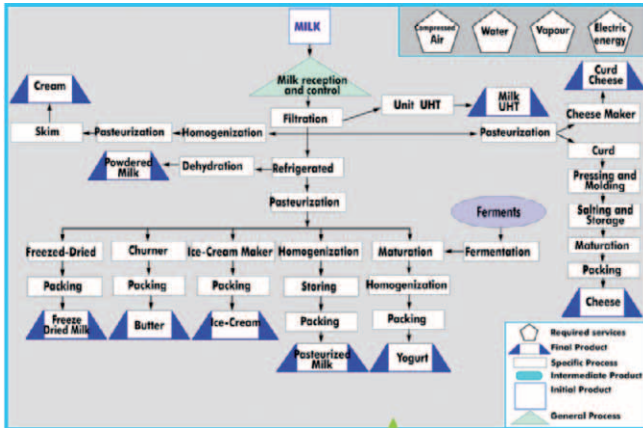


12HE. Higher Education Food Technology Laboratory

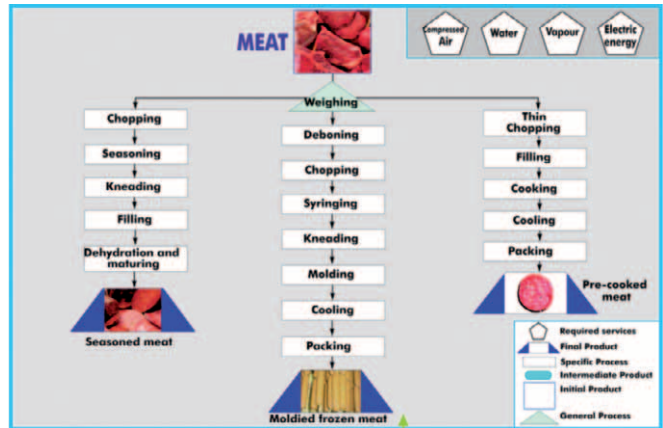


12PP. Food Technology: Pilot Plants

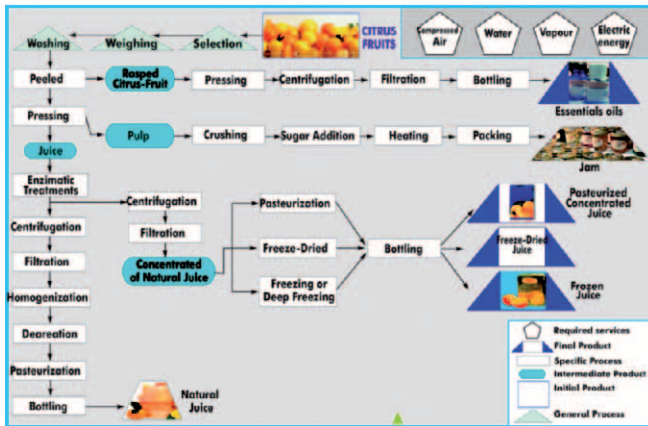
for Dairy Products (LE00)



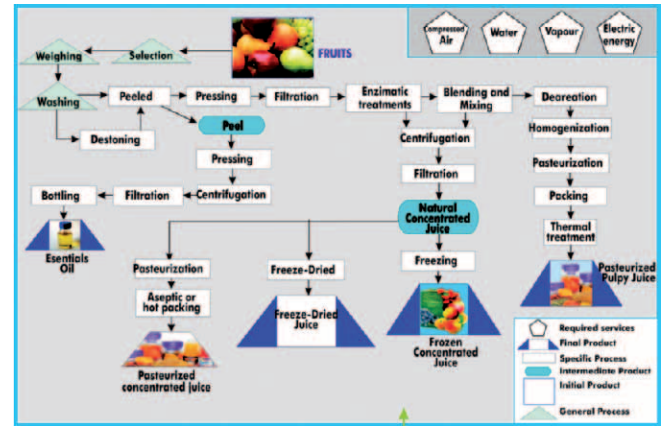
for Meat (CA00)



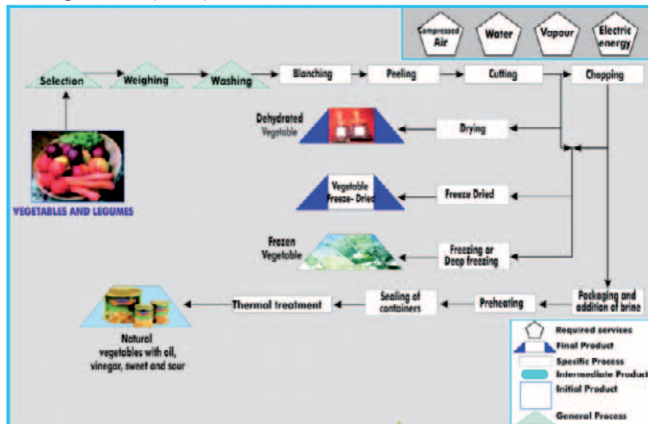
for Citrus Fruits (CI00)



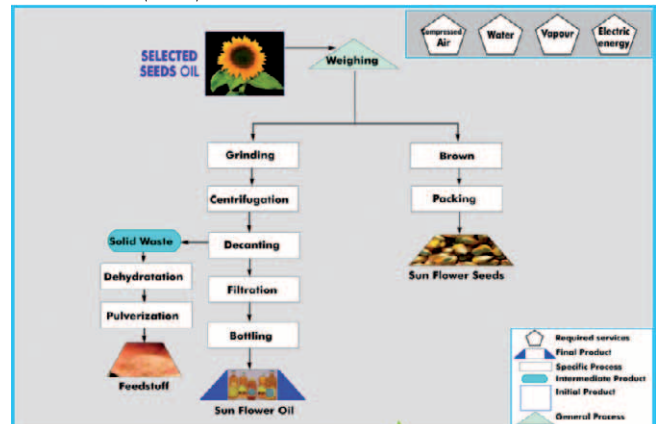
for Fruits (FR00)



for Vegetables (VE00)



for Seeds Oil (AS00)

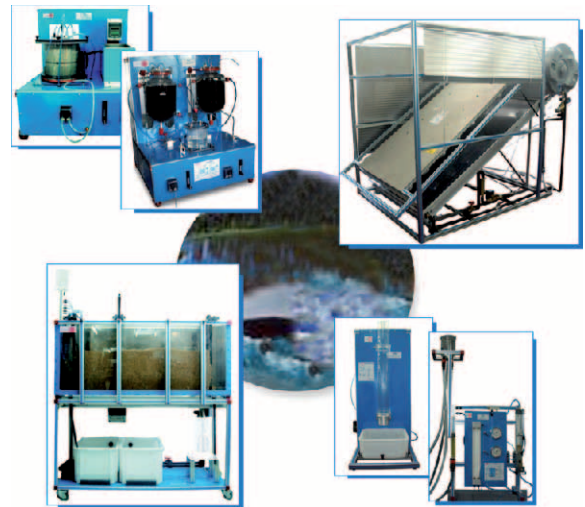


► Special Laboratories

20SKILL. New Technologies Technical Skills Center



20GREEN. Green Laboratory



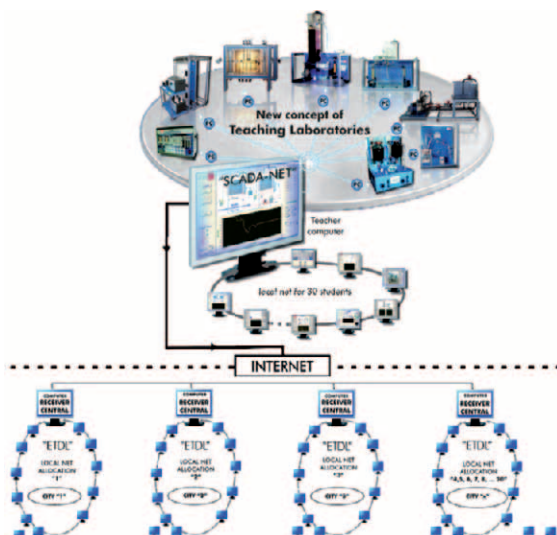
20AIRP. Airport Laboratory



20TTC. Teachers Technical Training and Applied Research Center

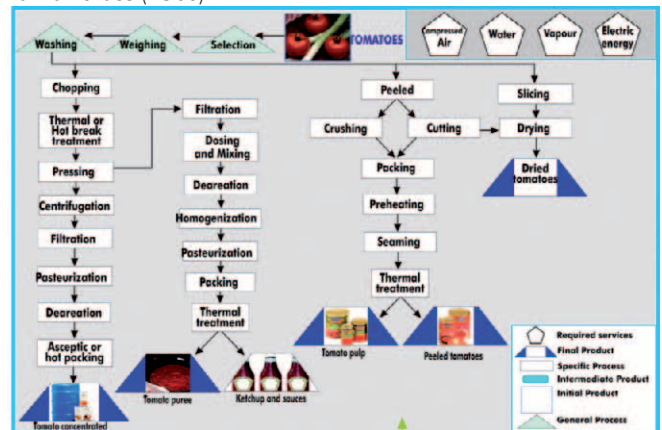


20TDL. Technical Professional Distance Learning

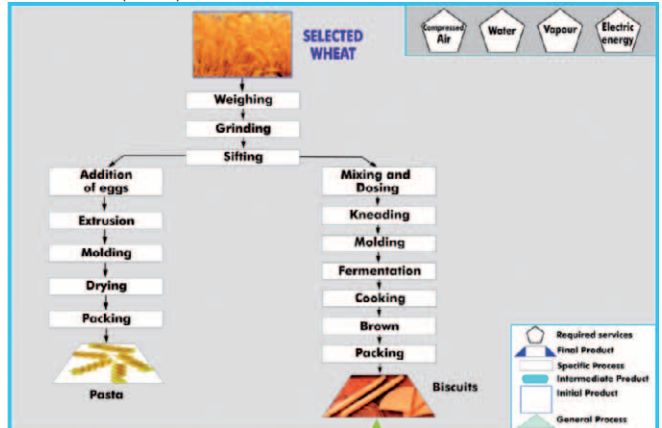


20MOBIL. Mobile Units



for **Tomatoes** (T000)

for Cereals (CE00)



13DES. Desalination Laboratory



13DW. Dirty Water Treatment Laboratory



Technical and Vocational Education Training Center (TVETC)



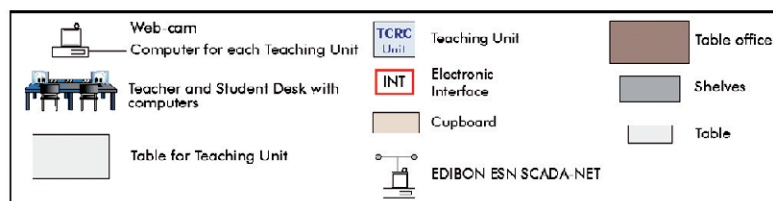
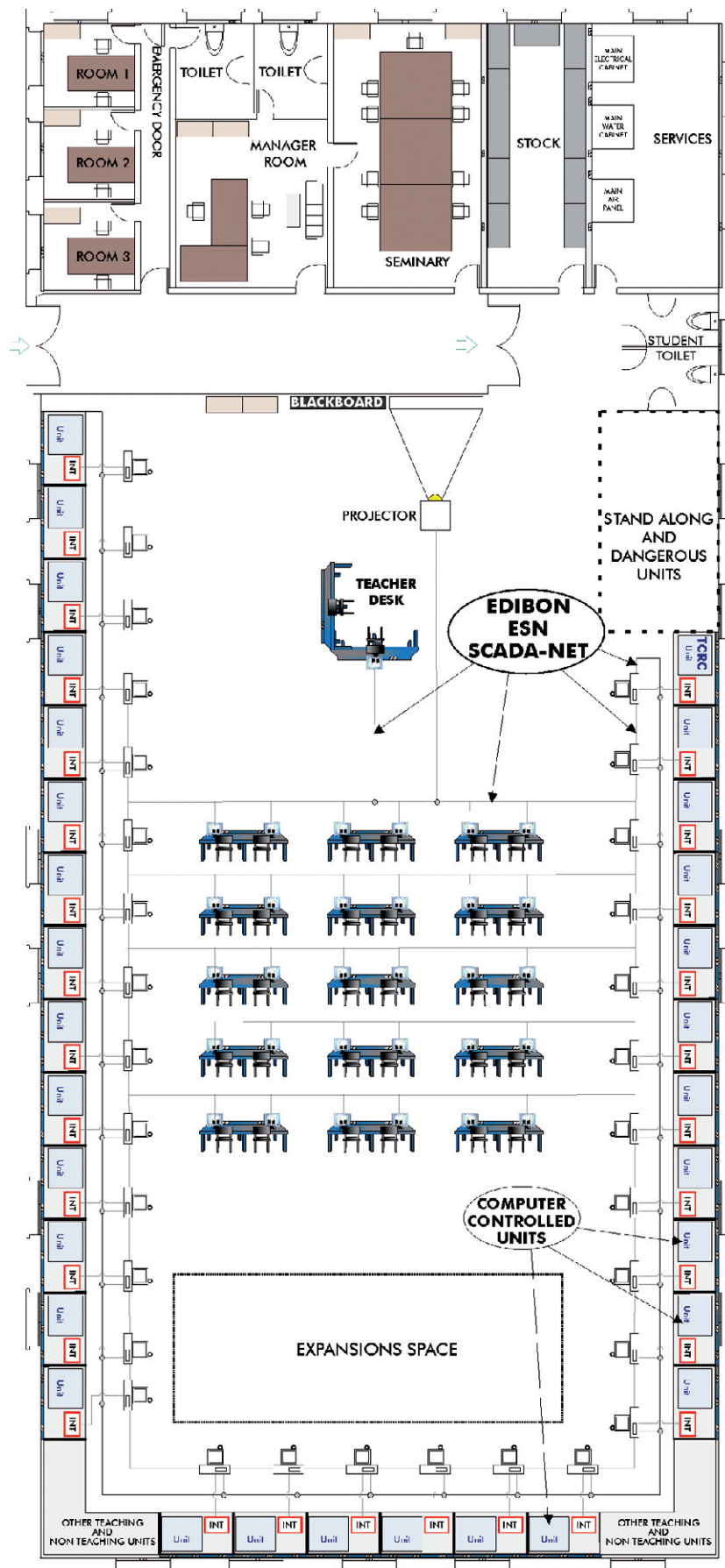
- AGRICULTURAL.
- AGRICULTURAL INDUSTRIES.
- AUTOMOTIVE.
- CHEMISTRY.
- CIVIL ENG.
- COMMUNICATIONS.
- ELECTRICAL.
- ELECTRONICS.
- FLUID MECHANICS.
- FOOD ENG.
- INDUSTRIAL CHEMICAL.
- MAINTENANCE.
- MARITIME AND FISHING.
- MECHANICAL-MANUFACTURE.
- MECHANICAL-METAL.
- REFRIGERATION & AIR CONDITIONING.
- ETC.

A collage of nine images representing various scientific and technological fields. The images are arranged in a grid-like fashion with blue borders. The top row features a large white space shuttle, a high-speed train, and a satellite dish. The middle row shows a highway interchange, a computer lab, and a classroom. The bottom row includes a control room, a chemistry lab, a physics lab, and a control panel.

- AERONAUTICS ENG.
- AGRICULTURAL ENG.
- AGRICULTURAL INDUSTRIES ENG.
- ARCHITECTURE.
- AUTOMATIC ENG.
- CHEMICAL ENG.
- CHEMISTRY.
- CIVIL ENG.
- COMPUTER SCIENCE & ENG.
- ECOLOGICAL ENG.
- ELECTRICAL ENG.
- ELECTRONICS ENG.
- ENERGETIC ENG.
- ENVIRONMENTAL ENG.
- FOOD ENG.
- FORESTRY ENG.
- GEOLOGICAL, MINES AND OIL ENG.
- GEOLOGY.
- INDUSTRIAL ENG.
- MARINE ENG.
- MATERIAL ENG.
- MECHANICAL ENG.
- METALLURGY ENG.
- NAVAL ENG.
- PHYSICS ENG.
- PROCESS ENG.
- SYSTEMS ENG.
- TELECOMMUNICATION ENG.
- TEXTILE ENG.
- TOPOGRAPHICAL ENG.
- ETC.

NEW CONCEPT OF TEACHING LABORATORIES

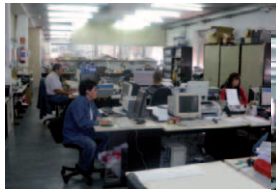
Classroom and Laboratory Lay Out



Our main factory



Global Factory View



R&D
Research & Development



Quality Control



Training and Show Room



Projects design



One of the Manufacturing Plants

Other Facilities that EDIBON offers

► **Laboratories and Special Units design:**

- Complete design from one or various laboratories and workshops in any Technical Training Center, at Higher, Technical, Vocational and Secondary Education level.
Our start-up point goes from the Center name, location, educational level and the different degrees offering at the moment or in the future by the Training Center.
We recommend consult to EDIBON in every case, for designing technically the project.
- Custom made units, for teaching or research purpose, using PID control from Computer and/or PID control from PLC.

► **Complete Training Center Design:**

- Complete design of a Technical School or University from the ground up. We offer:
 - Feasibility study and/or building and urbanization design, and/or construction management, etc., in cooperation with specialized partner companies.
 - Building construction, urbanism, etc., with local construction companies.
 - Workshops and Laboratories design with complete supply, installation, starting-up, training, technology transfer, etc.
 - In collaboration with experts in education we can also establish the curricula, structure and organization for the future Center.
 - Different types of financing available.
- Interconnection between different Campuses or Centers located in different cities.
The ETDL System (EDIBON Technical Distance Learning), allows having the laboratories in one city and the students can working with the units in the same city, or from any other city in the country. Being able to operate and manage the equipment remotely.

► **Financing for Private and Public Institutions:**

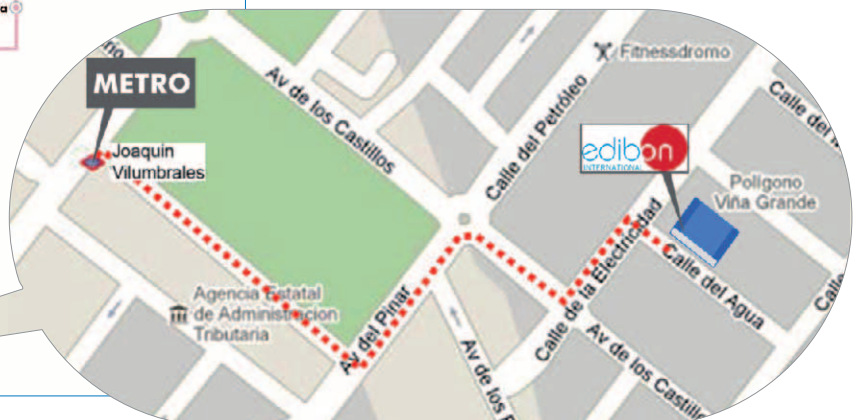
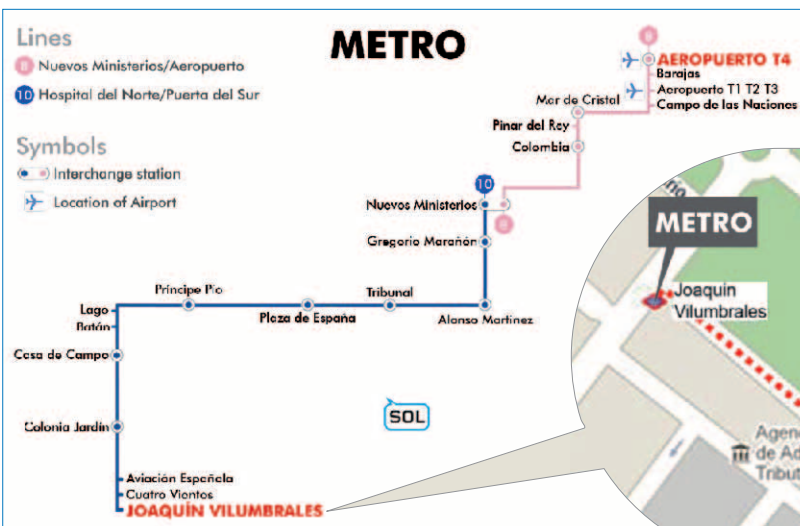
EDIBON can offer the proper financing facilities for each particular case, by using:

- Grants.
- Soft loans.
- Commercial loans.
- Barter.
- etc.

► **Training Courses for companies:**

EDIBON not only offers the training and the installation of all the units supplied, but also offers specialized training courses using real units with "PID control in real time" and industrial PID control systems using PLC for:

- Oil companies.
- Energy companies.
- ... or any type of company that would require them.

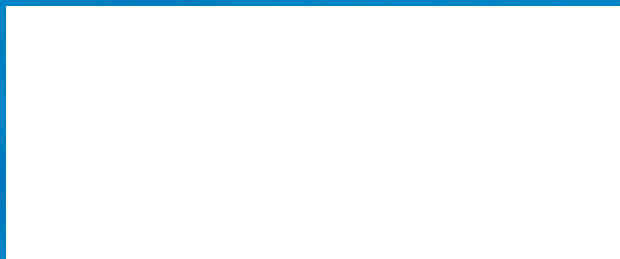


on



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 Fax +34 91 619 86 47
 edibon@edibon.com
www.edibon.com

REPRESENTATIVE:



ISO 9000: Quality Management
 (for Design, Manufacturing,
 Commercialization and After-sales service)



European Union Certificate
 (total safety)



**Certificates ISO 14000 and
 ECO-Management and Audit Scheme**
 (environmental management)



**Worlddidac Quality Charter
 Certificate**
 (Worlddidac Member)