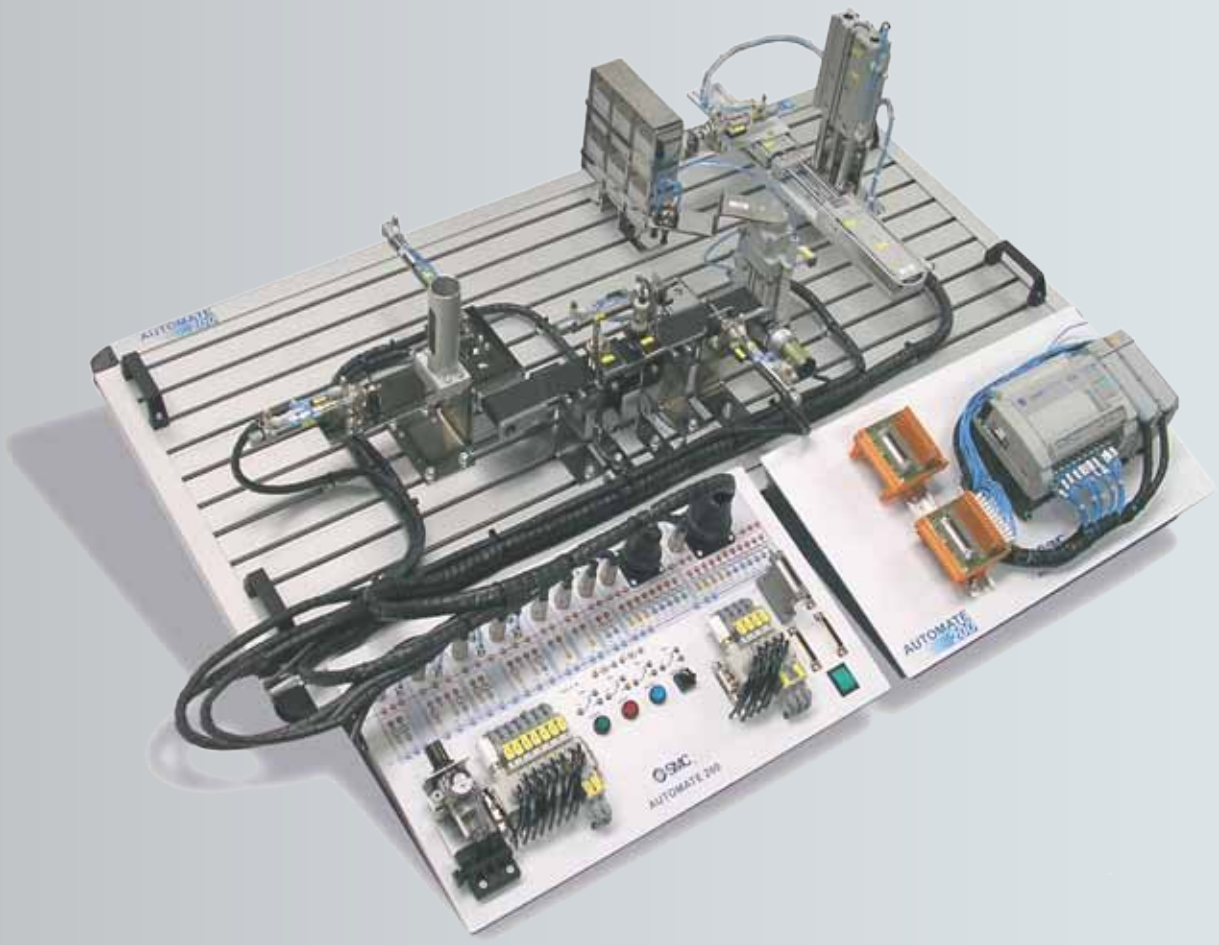
AUTOMATE-200

Welcome to the world of automation

Automation within your reach



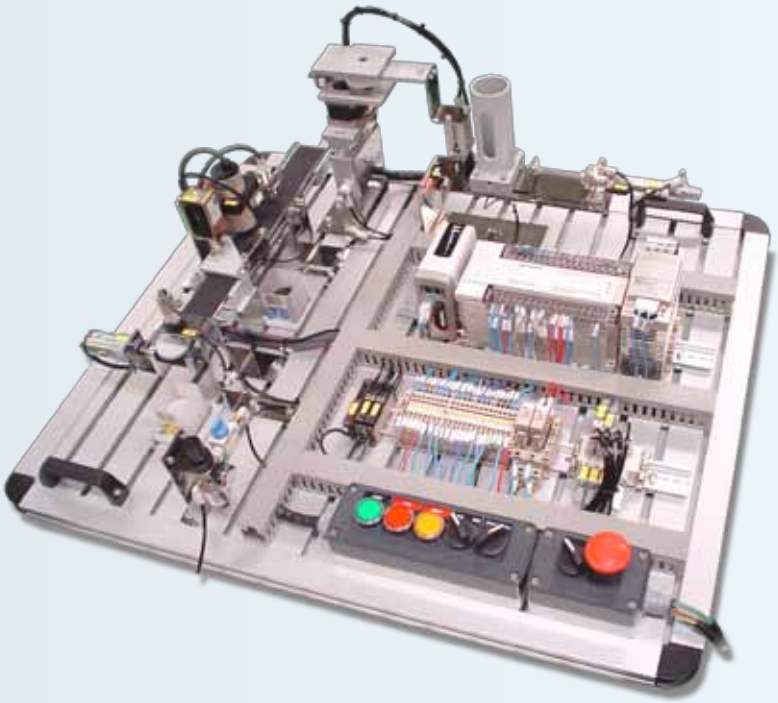
Easy and intuitive learning of the basic principles of automation

In the following TECHNOLOGIES...

PNEUMATICS | VACUUM | ELECTRIC MOTORS | SENSORS | PROGRAMM. CONTROLLERS | MANIPULATORS | AUTOMATED SYSTEMS

SMC
INTERNATIONAL TRAINING

Develop the SKILLS...



ANALYSIS

TROUBLESHOOTING

DESIGNING

TECH DOCUM. CREATION

INSTALLATION AND ASSEMBLY

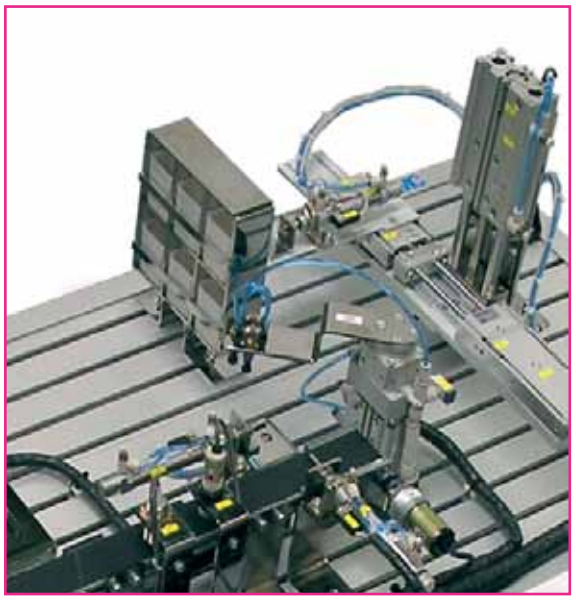
TECH DOCUM. UNDERSTANDING

OPERATION

PROGRAMMING

Three different versions adapted to the user's different needs

AUTOMATE-200 - Welcome to the world of automation



AUTOMATE-200 is SMC International Training's response to the increasing demand for the introduction of a technological culture in training centers.

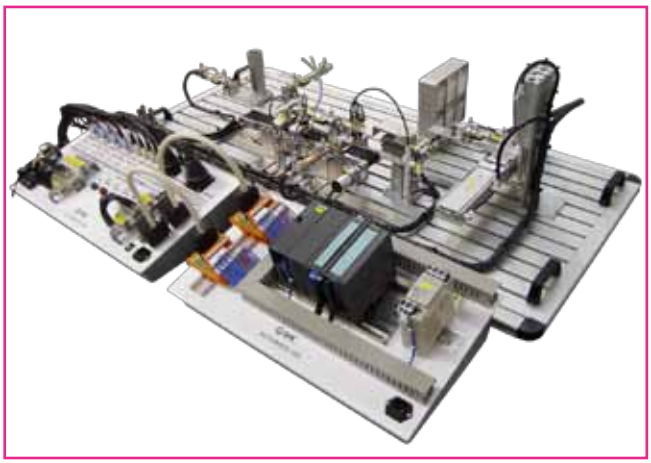
Using a recycling plant for solid urban waste as a reference, a fully modular design system has been developed for a training environment. The integration of the technologies in automated processes brings familiarization to the user of this fascinating world.

With this system, the student uses an integrated and motivating context to become familiar with technologies such as pneumatics, sensors, electric motors, PLCs, etc., in an enjoyable and intuitive way. Using completely industrial components we develop skills in analysis, troubleshooting, designing, creating technical documentation, setting up/commissioning, understanding technical documentation, operation and programming.

AUTOMATE-200 includes up to ten functional blocks that can produce an infinite number of configurations, emulating different processes and making it possible to perform an endless number of activities with different levels of difficulty.

The raw material used in the process includes parts with different colours (light/ dark), materials (plastic/ metal) and shapes (with or without hole). During the last phase of the process, the parts are sorted and stored in containers.

AUTOMATE-200 is available in 3 different versions:

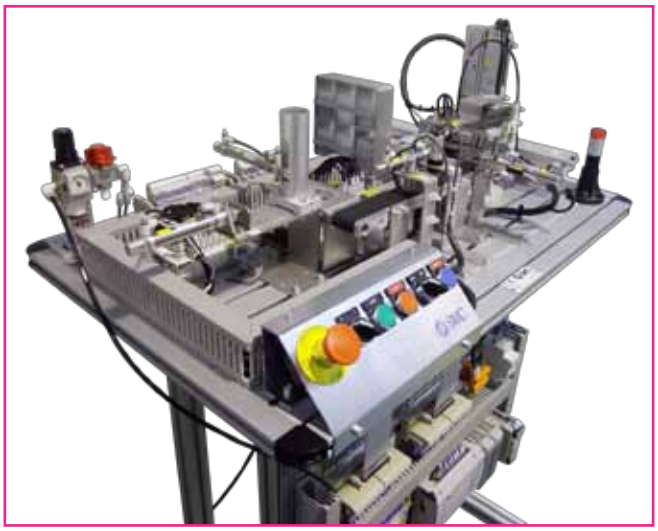


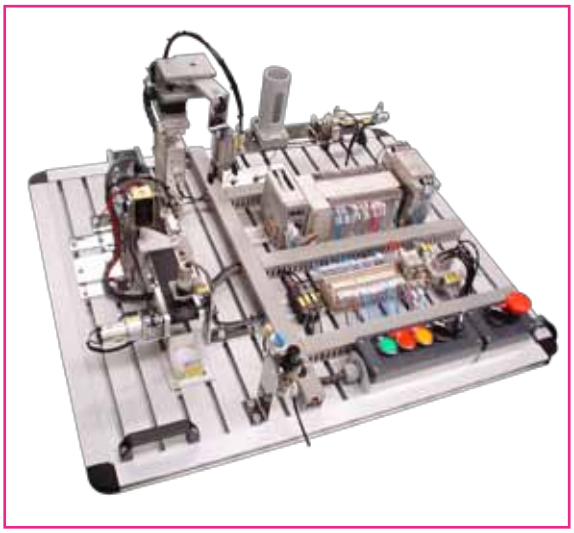
• AUTOMATE-200A
Instant connection wiring!

It has two control panels, manual and via a PLC, prepared for rapid connection to the functional modules.

• AUTOMATE-200B
Take it wherever you want!

This version, in addition to including the functional modules of the 200A version, is mounted on a trolley base with a fold-away control panel for the PLC and all electrical connections.

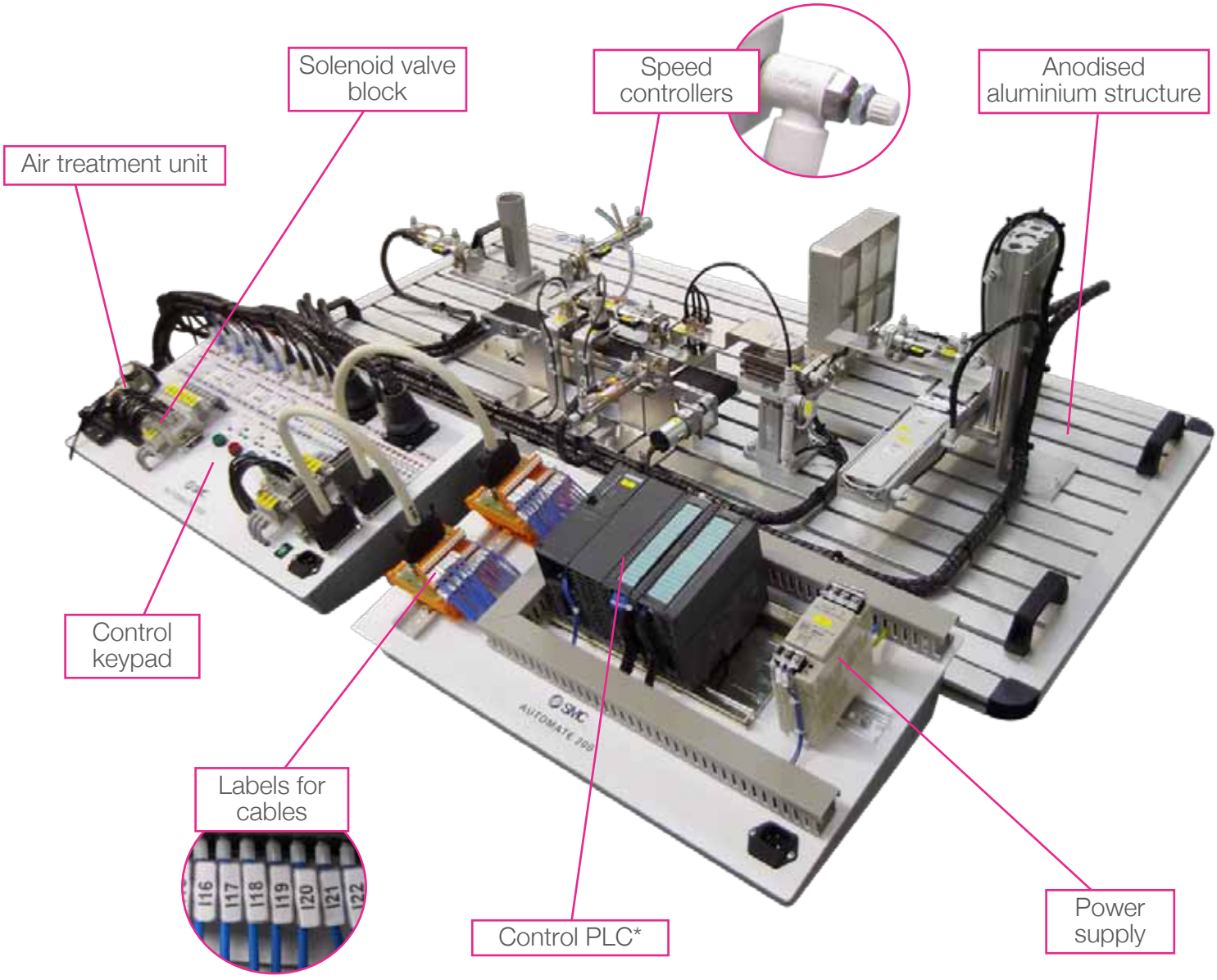




• AUTOMATE-200C
The most compact in the range!

Where space is at a premium,the compact version of AUTOMATE-200, includes all the essential AUTOMATE-200 features in a small footprint.

Common elements in all versions



*Options: PLC Omron, Allen Bradley, Mitsubishi or Siemens

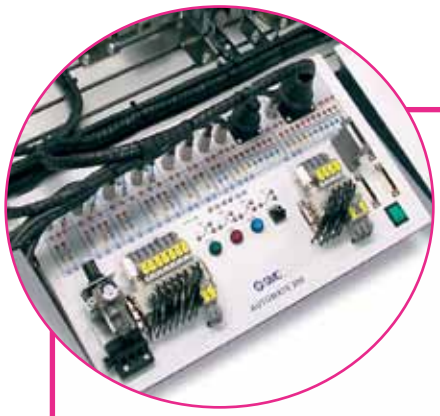
User manual and practice manual

Multimedia CD

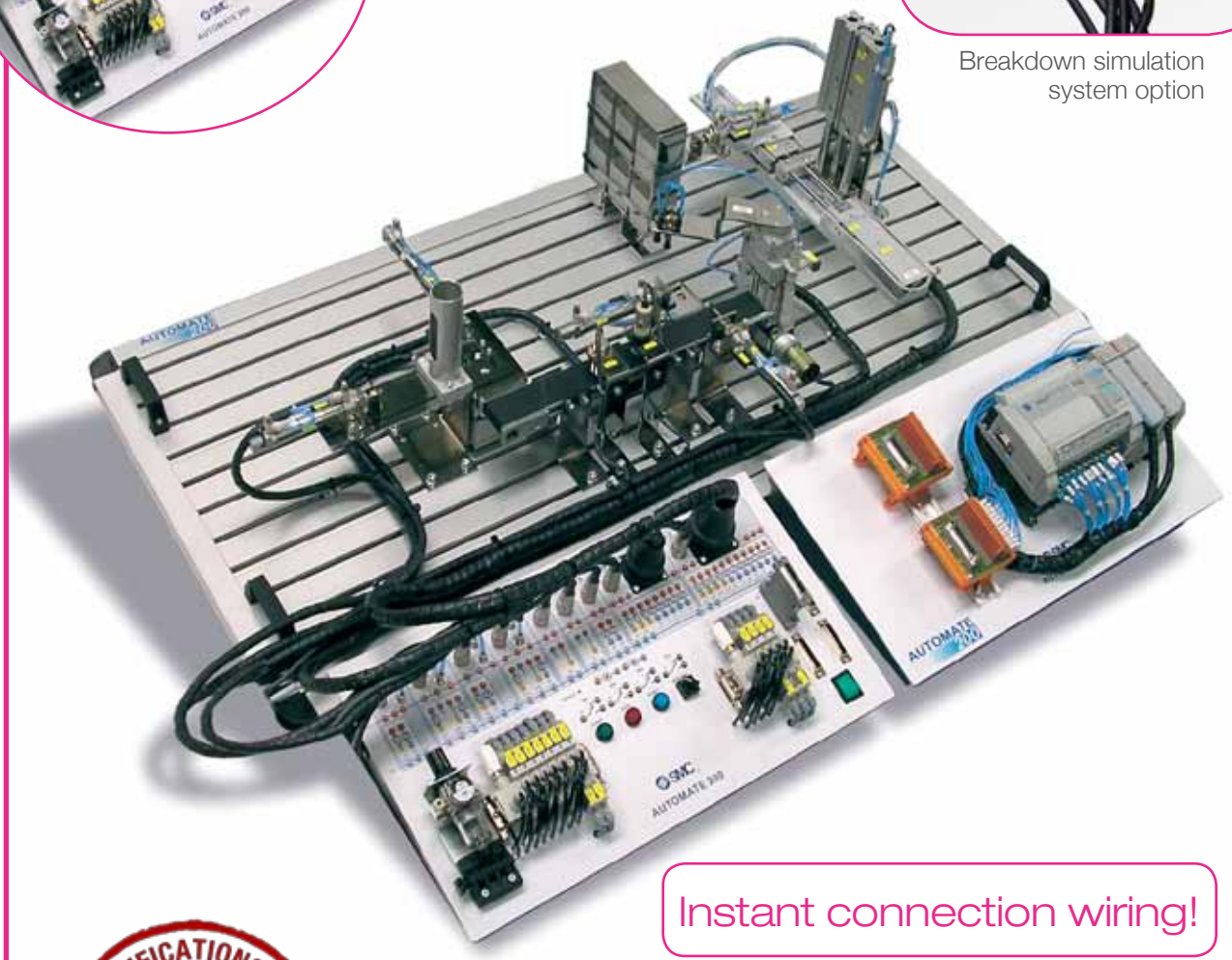
AUTOMATE-200A

This table-top version has two control panels. The first controls the functional modules by means of wired logic to the actuator and sensors using fast electrical connections. The second controls the process from the built-in PLC.

The troubleshooting simulation system TROUB-200 can be included, which generates up to 16 different breakdowns to be diagnosed by the user.



Breakdown simulation system option



Instant connection wiring!

• SAI2998	AUTOMATE with Allen Bradley PLC
• SAI2997	AUTOMATE with Siemens PLC
• SAI2996	AUTOMATE with Omron PLC
• SAI2995	AUTOMATE with Mitsubishi PLC

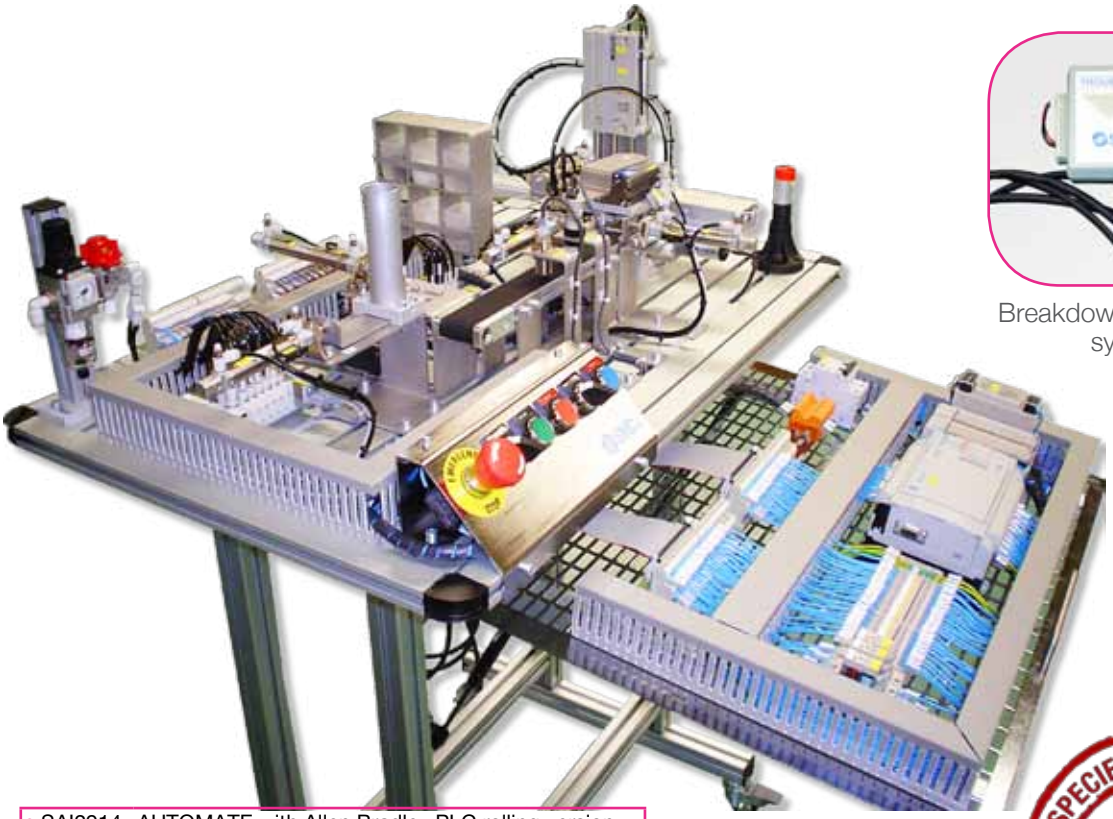
AUTOMATE-200B

As this version is mobile, it can be transported effortlessly round the classroom.

In addition to the functional modules included in the AUTOMATE-200A version, it incorporates a control panel with a fold-away PLC and coded electrical connections on a terminal board.

The troubleshooting simulation system TROUB-200 can be included, which generates up to 16 different breakdowns to be diagnosed by the user.

Rolling frame!



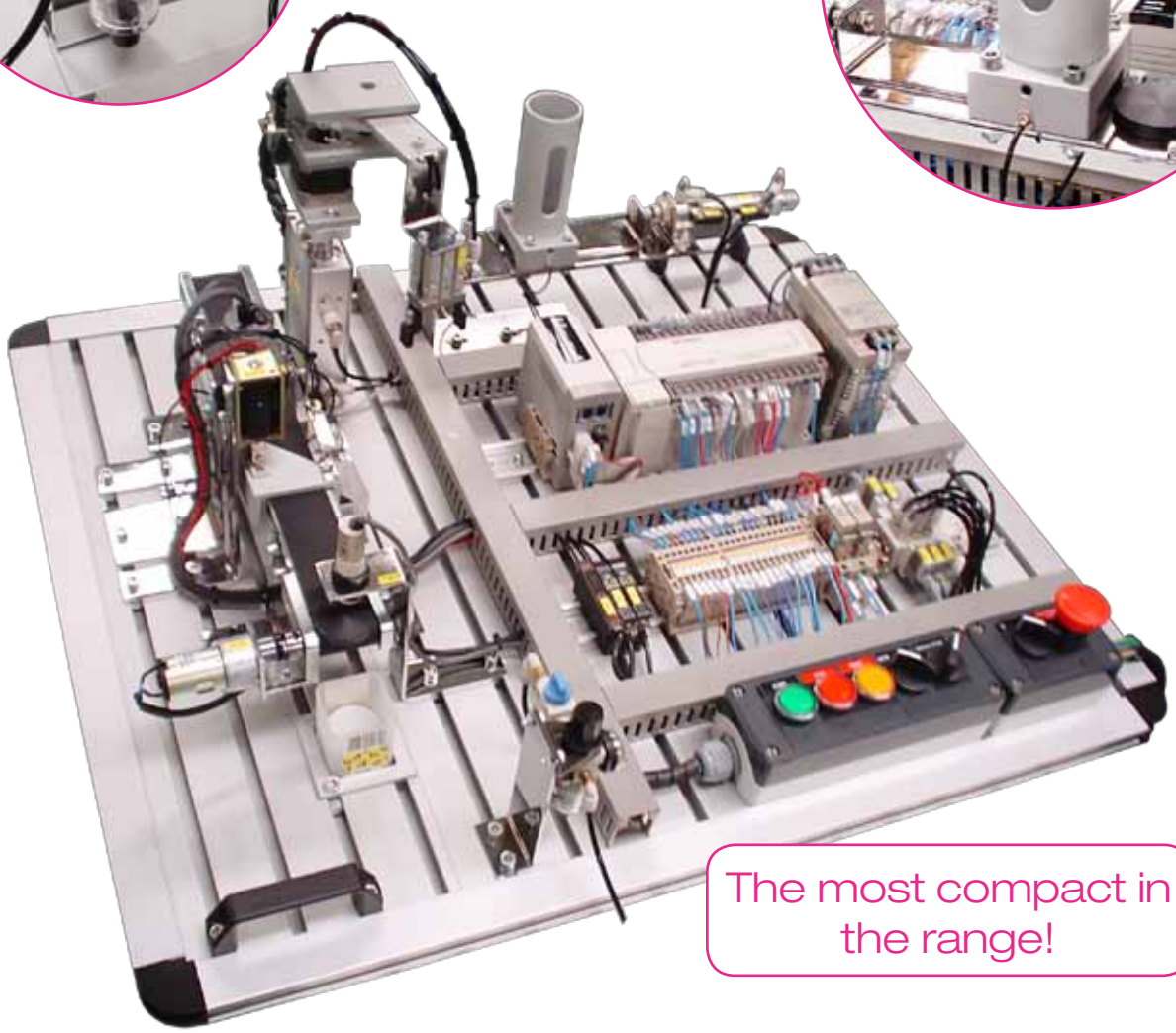
Breakdown simulation system option

• SAI2914	AUTOMATE with Allen Bradley PLC rolling version
• SAI2915	AUTOMATE with Siemens PLC rolling version
• SAI2916	AUTOMATE with Omron PLC rolling version
• SAI2917	AUTOMATE with Mitsubishi PLC rolling version

AUTOMATE-200C

AUTOMATE-200C is the compact version of AUTOMATE-200.

It includes all the essential parts of the AUTOMATE-200 family on a single, smaller base directly connected to the control PLC.



The most compact in the range!

•	SAI2918	AUTOMATE compact with Allen Bradley PLC
•	SAI2919	AUTOMATE compact with Siemens PLC
•	SAI2920	AUTOMATE compact with Omron PLC
•	SAI2921	AUTOMATE compact with Mitsubishi PLC

AUTOMATE-200 - With this system you could...

AUTOMATE-200 comes up with different practical activities targeting skills in the technologies featuring in the table (below).

TECHNOLOGIES

SKILLS

	PNEUMATICS	VACUUM	ELECTRIC MOTORS	SENSORS	PROGRAMM. CONTROLLERS	MANIPULATORS	AUTOMATED SYSTEMS
ANALYSIS	■	■	■	■	■	■	■
TROUBLESHOOT.					■		■
DESIGNING	■	■	■	■	■	■	■
TECH DOCUM. CREATION	■	■	■	■	■	■	■
INSTALLATION AND ASSEMBLY	■						
TECH DOCUM. UNDERSTANDING	■	■	■	■	■	■	■
OPERATION	■			■	■	■	■
PROGRAMMING					■		■

■ This shows how the AUTOMATE-200 is suitable to develop skills in the specific technology.

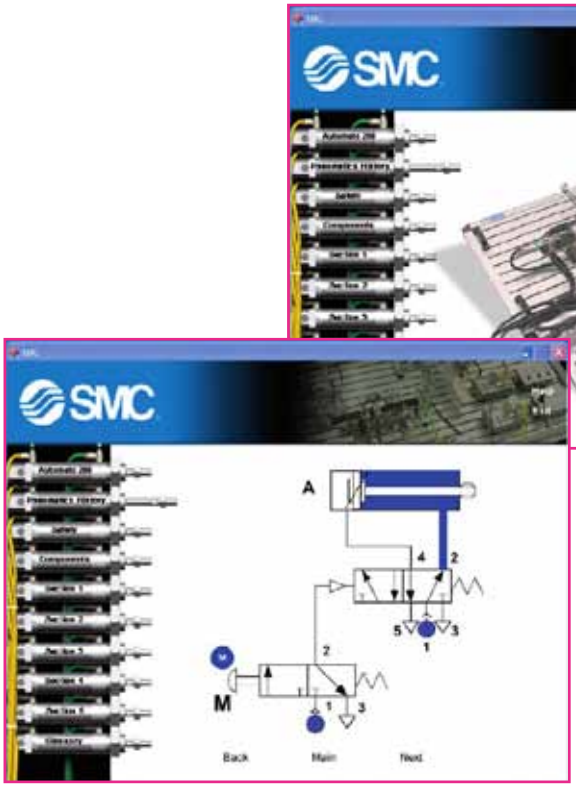
■ This shows that AUTOMATE-200 can help develop skills in the specific technology even though there are other more appropriate products in the range.

eLEARNING-200

Find out more about the theory behind the technologies developed in AUTOMATE-200 with our eLEARNING-200 courses.

RELATED eLEARNING-200 COURSES
Introduction to industrial automation (SMC-100)
Principles of pneumatics (SMC-101)
Introduction to electricity (SMC-102)
DC electricity (SMC-103)
Solid state (SMC-105)
Sensors technology (SMC-108)
Programmable controllers (SMC-109)

**See eLEARNING-200 chapter for more information*



The multimedia DVD includes:

- Guide for the teacher with theory and technical information for all system components.
- PLC guide (Allen Bradley) with the basic concepts and programming guide necessary to be able to program the control system.
- Theoretical and practical activities with answers and solutions.
- Troubleshooting guide with answers to the most common problems.

AUTOMATE-200 - Options

AUTOMATE-200 has a series of optional extras.

• Programming tools

The programming tools comprise the appropriate programming software and cables for the chosen PLC.

*See Programming Tools chapter

• SCADA: Supervisory Control and Data Acquisition

This is an industrial standard software application, making it easier to remotely supervise and control processes from a computer screen.

• SAI2924	SCADA application AUTOMATE-200

• AUTOMATE-200 application for autoSIM-200

We have a 3D application where users can simulate, supervise and control AUTOMATE-200 from an autoSIM environment.

• SAI2530	3D simulator for AUTOMATE-200, 1 license
• SAI2531	3D simulator for AUTOMATE-200, 8 licenses
• SAI2532	3D simulator for AUTOMATE-200, 16 licenses

**autoSIM is required. See autoSIM-200 chapter*
*** Not availabe in AUTOMATE-200C version*

• Troubleshooting simulation system for AUTOMATE-200

The troubleshooting simulation system TROUB-200 can be included in the AUTOMATE-200A and AUTOMATE-200B versions, which generates up to 16 different breakdowns to be diagnosed by the user.

• SAI2980	AUTOMATE-200 Troubleshooting box system

AUTOMATE-200 - Configuration

Getting the right AUTOMATE-200 specification is as easy as:

• Steps to follow

1.- Select the right version.

2.- Choose the PLC.

3.- Add any optional extras.

AUTOMATE-200 - Technical features

AUTOMATE-200A
1200x865x350mm

Modules	Sensors (type & qty.)	Input / Output
Vertical feeder Platform with part detector Colour detector Conveyor belt Belt drive Hole detector Material detector Roto-linear handling device with suction pads Part classifier Warehouse	Auto switch, Reed type (x10) Photoelectric (x1) Fiber optic (x2) Vacuum pressure switch (x1) Inductive (x1)	Digital 18/21

Other devices (quantity)	Actuators (type & quantity)
Manual control panel (x1) PLC control panel (x1)	Pneumatic linear (x9) Pneumatic rotary actuator (x1) DC motor (x1) Vacuum pad (x3) - Vacuum ejector (x1)

AUTOMATE-200B
900x580x1200mm

Modules	Sensors (type & qty.)	Input / Output
Vertical feeder Platform with part detector Colour detector Conveyor belt Belt drive Hole detector Material detector Roto-linear handling device with suction pads Part classifier Warehouse	Auto switch, Reed type (x10) Photoelectric (x1) Fiber optic (x2) Vacuum pressure switch (x1) Inductive (x1)	Digital 19/19

Other devices (quantity)	Actuators (type & quantity)
Three-colour indication light (x1) Rolling table Folding control panel	Pneumatic linear (x9) Pneumatic rotary actuator (x1) DC motor (x1) Vacuum pad (x3) - Vacuum ejector (x1)

AUTOMATE-200C
645x760x290mm

Modules	Sensors (type & qty.)	Input / Output
Vertical feeder Roto-linear handling device with pneumatic gripper Conveyor belt Material detector Presence detector End of conveyor belt detector Part sorting	Auto switch, Reed type (x4) Photoelectric (x1) Fiber optic (x3) Inductive (x1) Capacitive (x1) Micro-switch (x1)	Digital 17/12

Other devices (quantity)	Actuators (type & quantity)
Step by step driver (x1)	Pneumatic linear (x2) Pneumatic gripper (x1) Step by step motor (x1) DC motor (x1) Solenoid (x1)