

Model	From Machine No.
ED260	2,215,001
ED340	2,240,001
ED460	2,265,001
ED660	2,290,001
ED900	2,480,001
ED1250	2,470,001

# Operating and Maintenance Instruction manual for PROFESSIONAL ED dryers

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## EN PROFESSIONAL

ED260/ED340

ED460/ED660

ED900/ED1250

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 **WARNING**

FOR YOUR SAFETY THE INFORMATION IN THIS MANUAL MUST BE FOLLOWED TO MINIMIZE THE RISK OF FIRE OR EXPLOSION OR TO PREVENT PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

**WHAT TO DO IF YOU SMELL GAS:**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Clear the room, building or area of all occupants.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

The following "FOR YOUR SAFETY" caution must be posted near the dryer in a prominent location:

**FOR YOUR SAFETY**

Do not store or use gasoline or other flammable vapours and liquids in the vicinity of this or any other appliance.

 **IMPORTANT NOTE TO PURCHASER**

Post in a prominent location instructions to be followed in the event the user smells gas. The information to be posted shall be obtained by consulting with the local gas supplier.

## IMPORTANT SAFETY INSTRUCTIONS

1. Read all instructions before using the appliance.
2. Keep all instructions in an easily accessible place in order to resolve any queries, and in case of loss request a new one from your dealer.
3. Do not dry linen that has been previously treated or washed in petrol, dry cleaning solvents or other flammable or explosive substances. These substances give off vapours that could ignite or explode.
4. Do not allow children to play with or inside the machine. Do not allow children to play on or in the appliance. Close supervision of children is necessary when the appliance is used near children.
5. Before the appliance is removed from service or discarded, remove the door to the drying compartment.
6. Do not reach into the appliance if the drum is moving.
7. Do not install or store this appliance where it will be exposed to the weather.
8. Do not tamper with controls.
9. Do not repair or replace any part of the appliance or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that you understand and have the skills to carry out.
10. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
11. Do not use heat to dry articles containing foam rubber or similarly textured rubber-like materials.
12. Clean lint screen before or after each load.
13. Keep area around the exhaust opening and adjacent surrounding areas free from the accumulation of lint, dust, and dirt.
14. The interior of the appliance and exhaust duct should be cleaned periodically by qualified service personnel.
15. Do not place items exposed to cooking oils in your dryer. Items contaminated with cooking oils may contribute to a chemical reaction that could cause a load to catch fire.
16. **DO NOT REMOVE** any safety device **OR MODIFY OR MANIPULATE** any component or part of the machine. **DO NOT INSTALL** any extra elements inside the machine.
17. Any part of the machine that is replaced may affect its operation and the user's safety. For this reason, **USE ONLY THE MANUFACTURER'S ORIGINAL SPARE PARTS**. Failure to comply with this warning can cause serious accidents, malfunctions and the loss of the machine's guarantee and certifications.
18. Failure to comply with or observe the legislation and regulations covering health, safety and prevention of risks in the workplace applicable in the country where the machine has been installed, or actions contrary to common sense, **MAY CAUSE** personal injury or even death to the user.
19. The machine should only be used for those purposes established by the manufacturer and following the instructions for use set out in the instruction manuals. Any use not specified in the manuals may lead to additional risks. Pay special attention to information headed DANGER, WARNING and PRECAUTION.
20. The room where the machine is located **MUST** comply with the environmental conditions (air venting, temperature, humidity, etc.) specified in the technical specifications table. **NEVER INSTALL THE MACHINE IN ENVIRONMENTS** where it will be splashed with water or where there is a very high level of humidity in the atmosphere.
21. Clearly mark out danger areas and **PREVENT** public access to them when the machine is operating. Do not expose yourself to drainage areas or to vapour, condensation, combustion gas or ventilation outlets.
22. All machines working at temperatures present a fire risk. Take **EXTREME** care: **CLEAN** the machine of inflammable materials: lint, fluff, soot, etc. on a regular basis. **KEEP** the environment free of combustible materials and **PLACE** suitable extinguishers near the machine in easily accessible places.
23. All installations required for the proper operation of the machine **MUST** be carried out by a duly accredited Registered Installation Contractors (see Note 3), in compliance with the legal regulations applicable in the country of use.
24. The machine **MUST** be commissioned by the Authorised Technical Service in the presence of the Customer Technical Service (see Notes 2 and 4) or a responsible person appointed by the customer.

25. This machine **MUST BE USED** by personnel who are properly trained in how to use it (see Note 1).
26. **NEVER START THE MACHINE, OR USE IT, IF THE FOLLOWING ARE ABSENT, INCORRECTLY POSITIONED OR MALFUNCTIONING:**
  - COVERS (GUARDS) AND PROTECTIVE DEVICES
  - SAFETY DEVICES
  - CONTROL ELEMENTS
27. **DO NOT USE** the machine if you notice any abnormal noise or smell or if you suspect that the machine is faulty or defective.
28. On completion of the day's work, **TURN OFF** the manual fluid supply valves and **DISCONNECT** the electrical power. To avoid the risk of fire, **DO NOT** leave **HOT AND DRY** linen inside the dryers.
29. The inspections required by the regulations applicable to the country where the machine is being used must be carried out. It is advisable to request an overall, detailed service of the machine by the Authorised Technical Service every year (see Note 2).

30.  **WARNING!!**

**INSPECTION, MAINTENANCE OR REPAIR OPERATIONS**

Before carrying out any action on the machine:

- Close and mechanically lock the manual fluid supply valves.
- Check that the bath has **COMPLETELY** drained, that no part of the machine is at a high temperature and that no circuits or containers are under pressure.
- Check that all the machine's moving parts are halted or in their rest position. Securely fix all the machine's moving parts that could cause an accident.

To reduce the risk of electric shock:

- **COMPLETELY** disconnect the machine from the mains power supply and take steps to prevent accidental reconnection. **TURNING OFF THE ON SWITCH OR PRESSING THE STOP KEY IS NOT ENOUGH.**
- Disconnect the electrical connection of any circuit external to the machine; for example external dosing equipment, central vending units, linen feeders or folders, etc. The electrical connection for these circuits is independent of the machine's electrical connection.
- To prevent the risk of electrical discharge caused by residual voltage, wait at least five minutes before removing any guard or cover from the machine.

**Failure to follow these warnings may cause a serious accident.**

31. **CONTACT** the Installation Contractors or the Authorised Technical Service (see Notes 3 and 2) in the event of any doubt, anomaly or problem.
32. It is advisable to copy and enlarge the **SAFETY INSTRUCTIONS** and place them in a visible place in the laundry.
33. **THE MANUFACTURER ACCEPTS NO RESPONSIBILITY IF THESE SAFETY INSTRUCTIONS AND ALL THE INFORMATION IN THE CORRESPONDING MANUALS ARE NOT FOLLOWED.**

**SAVE THESE INSTRUCTIONS.**

## SYMBOLS USED IN MACHINE LABELLING

	<b>Electrical risk</b> Protective guard for elements carrying an electric current.		<b>High temperature risk</b> Handle with caution. Use adequate protection.
	<b>Mechanical risk</b> Protective guard for moving parts.		<b>Risk of inhaling harmful or irritant vapours</b> Keep the doors/covers closed. Use adequate protection.
	<b>Flame risk (only on some machines)</b> Protective guard for flame.		<b>Risk of falling</b> Use proper access and safety methods.
	<b>Access prohibited</b>		<b>Refer to instruction manual/booklet</b>

## SYMBOLS USED IN THIS MANUAL

	Symbol used to highlight a possible HAZARD, WARNING or NOTE.		This symbol is used to emphasise a particular explanation.
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## TRANSLATION OF THE ORIGINAL MANUAL

## NOTES:

- (1) **Trained personnel** refers to those who have read and understood the Instruction Manual, who have been trained by the Authorised Technical Service or by a representative of the customer present at the start-up who is familiar with the operation of the machine and is authorised to use it.
- (2) **Authorised Technical Service (ATS)** is one that has been recognised under contract and properly trained by the manufacturer.
- (3) **Registered Installation Contractors** are those officially approved by the government of the country the machine is to be installed.
- (4) **Customer Technical Service (CTS)** is one that has been authorised by the customer and which has sufficient basic technical knowledge to correctly interpret and carry out the actions attributed to it in this manual. The manufacturer strongly recommends that the customer should have its own technical service, particularly in laundries with large-scale machinery installations.

## IMPORTANT INSTRUCTIONS FOR USE AND PRESERVATION

1. **INTENDED USE OF THE MACHINE AND INAPPROPRIATE USE.** This machine is designed and intended solely for processing fabrics washed in a water bath or that have been previously treated in these conditions. Any use other than this is contraindicated without written authorisation from the manufacturer.
2. Maximum output, performance, reliability and durability are achieved when the machine is installed, used and maintained correctly, and if a comprehensive and detailed service is carried out annually by the Authorised Technical Service.
3. The machine's **MATERIALS** that are in direct contact with the chemical products involved in treating the linen are detailed in the manual.
4. The user must consult the supplier of the chemical products **USED THROUGHOUT THE WHOLE LINEN TREATMENT PROCESS** regarding the risks associated with its products and their combination. It must be confirmed that the products are not flammable, **ARE MUTUALLY COMPATIBLE**, and that they will not cause oxidation or deterioration of the machine or any injury to the people using them.  
It should be noted that, under certain conditions of use, hypochlorite (bleach) generates chlorine gas. Chlorine is a corrosive, oxidising substance which, at high concentrations and temperatures, damages stainless steel and elastomers.  
This same effect can also be caused by other strongly oxidising agents, including ozone.
5. **FOLLOW** the treatment recommendations for each fabric indicated by its manufacturer. **THE MANUFACTURER OF THE MACHINE accepts no responsibility for damage caused by inappropriate treatment of a fabric.**
6. Periodically **CLEAN** the outside of the machine to prevent damage to its metal parts. This will improve safety and extend its life. To clean the machine, use water and detergent. Rinse with a damp cloth and then dry off. To remove accumulated lint, use a suitable vacuum cleaner. **Water jet or pressurised steam cleaning is prohibited.**
7. **NEVER** use aggressive products to clean the machine or the premises. There are products on the market that give off highly corrosive vapours.
8. If the machine is left idle for long periods of time, it must be thoroughly **PROTECTED** from humidity and temperature variations.
9. Faults arising from improper machine operation may **VOID THE WARRANTY.**
10. When asking for information on your machine, **MENTION** the model and serial number. This information can be found on the specification nameplate incorporated into the machine.

With every machine, the manufacturer provides all the necessary technical information and documents required for its use. **KEEP IT IN GOOD CONDITION.**

## 1. PRIOR INFORMATION

### 1.1. General description of the machine

This manual applies to PROFESSIONAL CONTROL dryer models ED260, ED340, ED460, ED660, ED900 and ED1250 in all their different heating and control system versions.

Main features of the dryer

- Front-loading rotary dryer.
- A stainless steel drum with large perforation area consisting of pressed holes.
- Double glazed drum access door with air cavity (an option without air cavity is also available).
- Lint filter that has a large surface area and is easy to access for cleaning.
- Pressure switch for air flow leak detection.
- Availability of up to 10 pre-set programs and 40 programmable programs.
- Programming, copying, modifying and deleting menus in graphic mode.
- Multiple controls that ensure the safe use of the machine.

#### 1.1.1. Functional features

- Dryer operation controlled by microprocessor.
- Control of the temperature, drying time, drum rotation speed and linen wetness.
- Availability of up to 10 pre-set programs and 40 programmable programs.
- Programming, copying, modifying and deleting menus. These menus are displayed graphically to aid in understanding the various operations.
- Multiple controls that ensure the safe use of the machine.

### 1.2. EC declaration of conformity

The Installation Instruction Manual for the ED dryers contains a copy of the **EC declaration of conformity**.

### 1.3. Dos and don'ts in using the machine



#### **CAUTION!**

##### **APPROPRIATE USE:**

**THIS MACHINE HAS BEEN CONCEIVED AND DESIGNED FOR THE INDUSTRIAL DRYING OF LAUNDRY ITEMS WASHED IN WATER FREE FROM INFLAMMABLE OR EXPLOSIVE PRODUCTS. ANY USE OTHER THAN DESCRIBED, CARRIED OUT WITHOUT WRITTEN AUTHORISATION FROM THE MANUFACTURER, WILL BE TAKEN AS INAPPROPRIATE TO THE TERMS OF USE.**



#### **CAUTION!**

##### **INADVISABLE USE**

##### **It is totally prohibited to:**

- Operate the machine without the covers and guards correctly in place and secured.
- Dry linen that has been previously treated or washed in petrol, dry cleaning solvents or other flammable or explosive substances. These substances GIVE OFF VAPOURS that could ignite or explode.
- Iron fabrics or fibres at temperatures above those recommended by the manufacturer of the material.
- Dry articles of linen containing components unable to withstand the drying temperatures.
- Disconnect the power supply until the cooling-down cycle has fully completed, EXCEPT IN AN EMERGENCY.
- The machine should not be used without covers or guards being fitted, or if any indication of faults, deterioration or malfunction is detected.

**DANGER!****RISK OF SPONTANEOUS COMBUSTION**

Because of the temperature of the linen, there is a potential risk of spontaneous combustion of the laundry load inside the dryer.

To avoid the risk of spontaneous combustion, it is very important to follow these instructions:

- Finish off drying programs with the cooling phase and do not remove the load until the cycle is completely finished.
- Once the drying cycle has finished or in situations where there is a power failure, remove the linen quickly from inside the dryer.
- Do not allow lint to accumulate in critical areas of the machine. Lint is readily flammable.
- No washing machine can completely remove oils from fabrics. Never dry articles of linen that are stained with oil. Never dry articles of linen containing rubber. Use the dryer **ONLY** to dry fabrics washed in water.

**DANGER!****SPECIFIC WARNINGS FOR DRYERS WITH ELECTRIC HEATING**

If the machine is at a high temperature and the fan stops or the power supply is disconnected, the heat accumulated in the heater box is released through the grille in the top cover as hot air. Therefore:

- Never obstruct this ventilation grille.
- Do not place any object or substance on this cover.
- Do not touch the dryer's top cover.

**DANGER!****SPECIFIC WARNINGS FOR GAS-HEATED DRYERS**

When stopping the machine, always shut off the manual gas stopcock. Always turn off the gas heating before stopping the machine.

**DANGER!****SPECIFIC WARNINGS IN PROCESSES FOR DRYING MOPS**

Some chemicals used in cleaning processes with mops are inflammable and are not easily removed during the washing of mops.

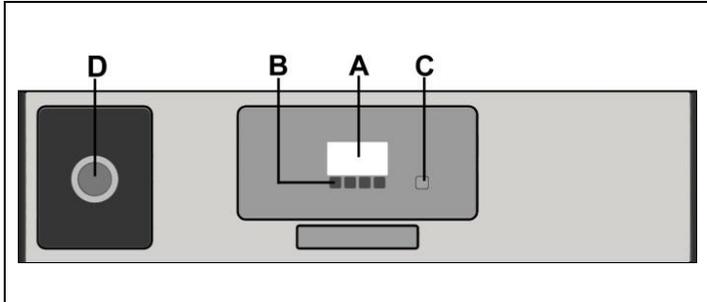
For this reason it is advisable to:

- Never dry mops that have not previously been washed in a water bath.
- Ensure that the processes of washing the mops completely eliminates the residual chemicals that they are impregnated with.

## 2. MANAGEMENT AND CONTROL SYSTEM

### 2.1. Control panel

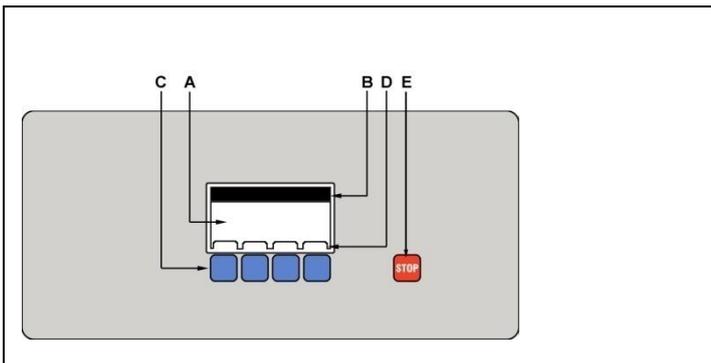
#### User interaction devices on the dryer



- A.- LCD display.** Displays all the operating information.
- B.- Multifunction keypad.** Allows interaction with the machine.
- C.- STOP key.** Key for stopping the program.
- D.- Emergency stop.** Red button with lock situated in a visible and accessible location on the machine (select models only).

#### 2.1.1. User interface

Enables the user to interact with the different operations run by the dryer.



- A.- Display.** General overview of menus, programs and functions.
- B.- Titles and values bar.** Indicates the titles and values that are a feature of the program.
- C.- Multifunction keypad.** Its function varies depending on the working menu.
- D.- Function indicator bar.** Displays the function assigned to the corresponding key.
- E.- Stopping the program.** Consult the stop modes in Section 4.6.

#### 2.1.2. Functions assigned to the multifunction key



Confirm key



Move to the right



Move to the left



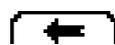
Scroll up



Scroll down



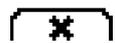
Confirmation/Modification



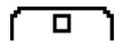
Back to previous menu



Information



Cancellation



Halt alarm



Silence alarm

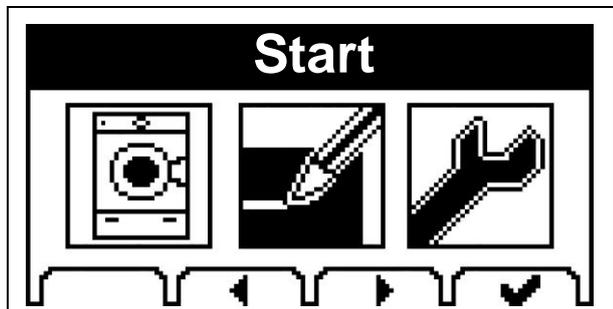
**Screen in text mode.** Used in the **SETTINGS** mode menus. The language for the texts can be selected in the settings menu. Refer to Section 7.1.

## 2.2. Interpreting the main on-screen icons

ICON	EXPLANATION
	Access to the drying programs
	Access to program editing
	Access to tools menu
	Temperature indicator
	Heating activated
	Heating not activated
	Heating turned off
	Drying mode by detection of relative moisture
	Moist drying mode
	Dry drying mode
	Extra-dry drying mode
	Phase/program time indicator
	Deleting a program
	Copying a program
	Modifying an existing program
	Creating a new program
	Editing a program

### 3. INTERVENTION MODES

The machine control is divided into **THREE MAJOR OPERATION AREAS** or user **INTERVENTION MODES**. Each of the three modes is accessed through the **MAIN MENU** made up of three icons identifying each of the modes.

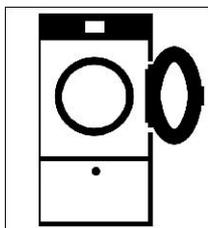


Menu selection keys.



Confirming the selection.

**Displaying in graphic mode.** The icons selected in graphical mode are displayed highlighted against a dark background.



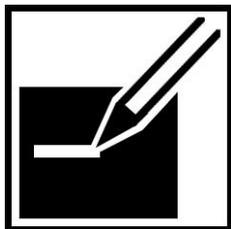
#### PROGRAM EXECUTION MODE

Covers the functions or interventions aimed at:

- Selecting and executing the different drying programs.
- Accessing information about the different functions that the dryer is executing.
- Specific modifications of the program being executed.

The information that appears on the screen during the execution of a program is in graphic mode.

Information regarding this intervention mode: Chapter 4 on this manual.



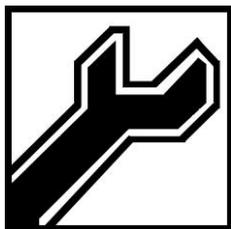
#### PROGRAM EDIT MODE

Covers the functions or interventions aimed at:

- Changing the name of the preset programs.
- Making a new drying program or modifying the contents of an existing program (the contents of the factory preset programs cannot be changed).
- Copying an existing program and modifying it.
- Deleting the programs programmed by the user from the machine's memory.

The information that appears on the screen in the program management menu is in graphic mode.

Information regarding this intervention mode: Chapter 5 on this manual.



#### SYSTEM TOOLS MODE

This area offers specific menus for **CONFIGURING THE SYSTEM**.

Among other features:

- Configuring operation settings.
- Setting the system clock.
- Controlling access and security codes.
- Information about the characteristics and life of the machine.

The information in this area is in text mode.

Information regarding this intervention mode: Chapters 6 - 8 on this manual.

## 4. PROGRAM EXECUTION MODE

### CAUTION!

THE REGULATIONS FOR SAFETY AT WORK AND ACCIDENT PREVENTION MUST BE METICULOUSLY FOLLOWED.

DO NOT USE THE MACHINE WITHOUT SUITABLE TRAINING AND EXTENSIVE OPERATING KNOWLEDGE.

NEVER START OR USE THE MACHINE IF ANY OF THE FOLLOWING ARE MISSING, INCORRECTLY POSITIONED OR MALFUNCTIONING:

- COVERS (GUARDS) AND PROTECTIVE DEVICES
- SAFETY DEVICES
- CONTROL ELEMENTS.

BEFORE HANDLING THE LINEN INSIDE THE DRYER, WAIT UNTIL THE DRUM HAS COMPLETELY HALTED.

IF THE LINEN IS AT A HIGH TEMPERATURE, PROTECT HANDS WITH THERMALLY INSULATED GLOVES.

### DANGER!

#### MECHANICAL RISKS

To avoid the risk of being caught up in the machine's moving parts it is essential for hair to be tied up and suitable fitted clothing to be worn.

Jewellery must not be worn.

Do not use the machine without all the cover and safety guards correctly in place.

Disconnect the power supply and close the gas supply valves and other sources of heating before removing any form of protection.

#### ELECTRICAL RISKS

It is essential for the machine to be connected to external protection (earthed).

#### HIGH TEMPERATURE RISKS

Do not remove any safety guards without first making sure the machine is cool (<35 °C / 90 °F).

Do not put the hands anywhere near the exposed surface of the drum, particularly, the laundry output area or the heating circuit elements.

Wear heat insulating gloves to protect the hands from the continuous contact with hot laundry.

#### FIRE RISKS

Lint and soot are highly flammable substances.

It is essential to avoid these building up inside the machine and the exhaust ducting running from the machine to the outside.

To achieve this, all the places likely to collect lint and soot must be regularly cleaned (e.g.: covers, exhaust ducting, filter, fan, etc.).

Also keep the area around the machine free from lint and any other inflammable materials or substances.

Remove the linen from inside the dryer without delay. This will prevent creases in the fabric and reduce the risk of spontaneous combustion.


**DANGER! (AUSTRALIA ONLY)**

According to A.G.A specs:

**Do not use or store flammable materials in the appliance storage drawer or near this appliance.**

**Do not spray aerosols in the vicinity of this appliance while it is in operation.**

**Do not modify this appliance.**

**This appliance shall not be used to dry off solvents or drycleaning fluids.**

#### 4.1. Connecting the energy sources

- Turn on the dryer's external power supply switch.
- Switch on the dryer breaker switch (machines with breaker switch).
- Open the manual gas inlet valve (gas heated dryers only).

#### 4.2. Load the machine

- Group the fabrics to be dried into homogeneous loads. Avoid mixing articles of different thicknesses and moisture level, since this will slow down the drying to the detriment of fine materials.
- To aid the movement of air through the inside of the drum, the load must not exceed the nominal capacity.

Nominal capacity by models (Load ratio 1/20):

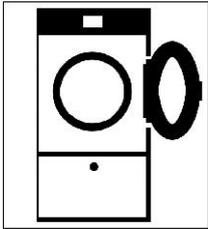
CAPACITY	MODEL					
	ED260	ED340	ED460	ED660	ED900	ED1250
kg	13	17	23	33	45	62.5
lb	28.7	37.5	50.7	72.8	99.2	137.8

- Do not dry linen with accessories that cannot be machine dried.
- It is not advisable to mix whites with other colours.
- It is not advisable to mix items of different fabric or thicknesses, especially when programs with moisture control are used.
- Check labels and/or characteristics of the garments or fabrics to be dried and choose a program in accordance with these characteristics.
- Ensure that the dryer's filter is clean. Remember that a dirty filter reduces the dryer's performance.
- Open the door and load the machine.

##### 4.2.1. Guidelines for the prevention of risks in loading and unloading

- See the dryer measures and the heights of the work areas in the corresponding Installation Instruction Manual.
- To prevent risks due to high temperature, hands must be protected with heat-insulated gloves.
- Follow the legislation and regulations for health and safety in the workplace in force in the country where the machine has been installed.

### 4.3. Selecting and starting a program



Select the RUNNING PROGRAMS menu on the main screen.

#### 4.3.1. Program groupings

The dryer has 50 programs grouped into three types:

- Programs that can be programmed by the user: Programs that are empty of content, where programs can be created and stored. (Maximum number of programs that can be programmed: 40).
- Preset programs: Ten preset programs with different drying cycles. Only their names can be changed, not their content. Its appearance on the program list is optional and can be selected in the OPTIONS menu from the Tools menu (see Section 7.1.2).
- Manual program. A program that allows the user to program a drying cycle for a single use only, and which is NOT stored in the dryer's memory. Its appearance on the program list is optional and can be selected in the OPTIONS menu from the Tools menu (see Section 7.1.2).

#### 4.3.2. Order that the programs are displayed on the screen

The machine displays four programs per screen in the following order of appearance:

- Top four: List of the four most commonly used programs (either preset or programmed), arranged by frequency of use. On starting up the dryer for the first time the screen displays the first four pre-recorded programs. As different programs are run, these are displayed in the top four positions.
- Manual program: If the manual program display is enabled and is not used, it will be positioned after the list of the top four.
- Programs created by the user: List of the created programs. If no programs have yet been created, the machine displays the preset programs directly.
- Preset programs: List of ten programs preset in the machine's memory. The display of the preset programs is activated by default. The display can be disabled in the OPTIONS menu in the tools menu.

### 4.3.3. Starting a program

- Select the desired program using the  and  selection keys. The information related to the program selected is displayed at the top right of the screen:
  - drying temperature (70 °C in attached image)
  - drying stage time (25 minutes in attached image) / degree of drying (according to the setting set in the program).
- Press the **START PROGRAM** key. After a few seconds the drum will begin to rotate.

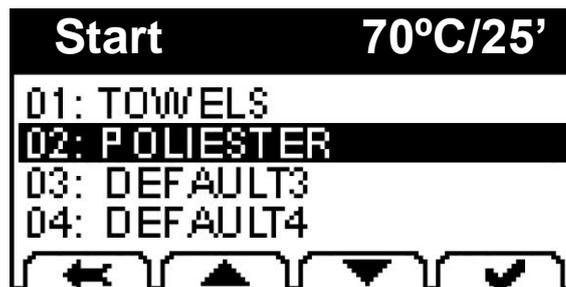


Fig. 4.1

If the ADVANCED USAGE SETTINGS option has been enabled, see Section 4.4.1.

See examples of executing a program in Section 4.3.6.

### 4.3.4. End of the program

Once the cooling stage has ended, the machine informs the user of the end of the drying program acoustically and on screen.

#### Precautions at the end of the drying program

##### **N.B. It is very important:**

- To remove the linen from inside the dryer without delay. This will prevent creases in the fabric and reduce the risk of spontaneous combustion.
- To clean the lint filter on a regular basis. Lint prevents extraction and reduces the performance of the dryer. Use the indication for periodic cleaning of the lint filter in the general settings Configuration menu. (Section 7.1.1). Further information about cleaning the filter can be found in Chapter 11.
- The final temperature of the linen can be high. Protect hands with heat-insulated gloves.

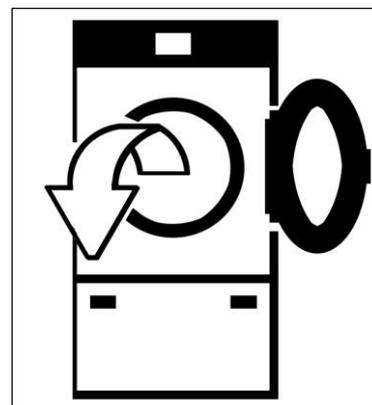


Fig. 4.2

### 4.3.5. Standby mode at end of program

If the load is not removed immediately on completing the drying program and corresponding cooling phase, the machine will remain in standby mode. In this state, the machine will rotate the drum every 30 minutes for 1 minute and run the extractor.

The maximum time in standby mode is 120 minutes.

**4.3.6. Running a program. Description and examples of the screens**

For further information, see comments on the various functions that the dryer executes during the program in Chapter 5: Edit mode.

During the course of the drying program, a series of informative screens will appear describing the functions that the dryer is executing. Information about functions is displayed by means of icons.

Two examples of drying programs are shown below:

Example 1: length of the drying stage in accordance with set time.

Example 2: length of the drying stage in accordance with linen moisture level control.

These examples are based on the **EASY** operating mode.

**Example 1: Length of the drying stage in accordance with set time**

- Select the desired program using the  and  keys. Then press  to start the program (Fig. 4.1).

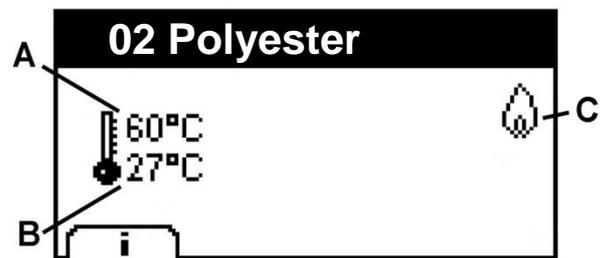


Fig. 4.3

- Once the program has started, the screen will display the programmed temperature (Fig. 4.3/A), the internal temperature of the machine (Fig. 4.3/B), as well as the heating icon in activation phase (Fig. 4.3/C).

- During the **drying stage**, the remaining drying time is displayed (Fig. 4.4/A), and depending on the type of drying selected, the Autospeed  or speed change icon appears (Fig. 4.4/B).

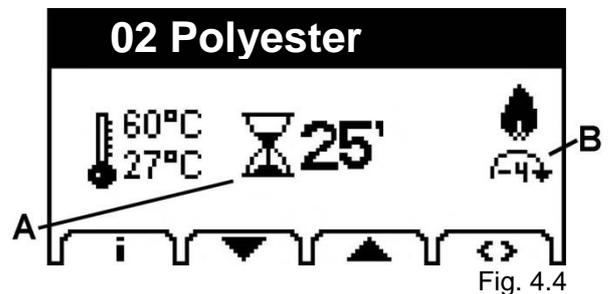


Fig. 4.4

- When the dryer enters the **cooling phase** the programmed cooling temperature is displayed (Fig. 4.5/A), the internal temperature of the machine (Fig. 4.5/B), as well as the time remaining until the end of the cooling phase (Fig. 4.5/C).

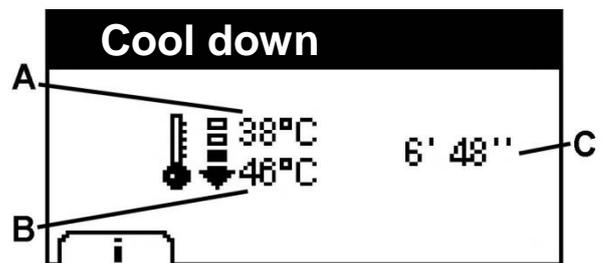


Fig. 4.5

Once the cooling stage has ended, the machine informs the user of the end of the drying cycle acoustically and on screen.

**Example 2: Length of the drying stage in accordance with linen moisture level control**

 For machines with moisture detector only

- Select the desired program using the  and  keys. Then press  to start the program (Fig. 4.1).

- Once the program has started, the screen displays the programmed temperature (Fig. 4.6/A), the internal temperature of the machine (Fig. 4.6/B), the heating icon in activation phase (Fig. 4.6/C), the moisture level programmed (Fig. 4.6/E) and the time elapsed (Fig. 4.6/D).

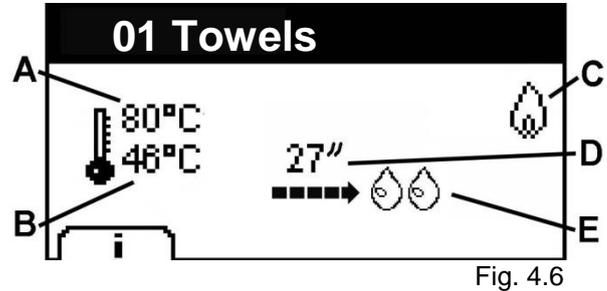


Fig. 4.6

- During the **drying stage**, the drying time elapsed is displayed (Fig. 4.7/A), and depending on the type of drying selected, the Autospeed  or speed change icon appears (Fig. 4.7/B).

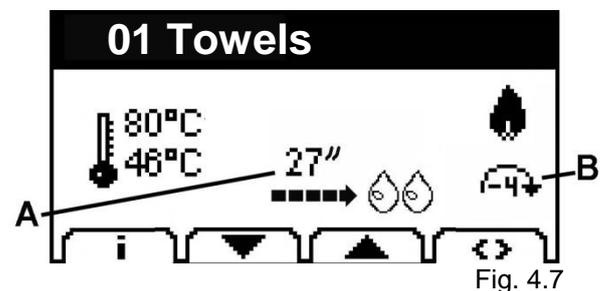


Fig. 4.7

- When the moisture level detected by the dryer is equal to the level programmed, the dryer will enter the cooling stage and end of the cycle (see Example 1).



**DANGER!**  
**ONCE THE PROGRAM HAS ENDED, THE LINEN AND THE INSIDE OF THE DRUM MAY BE AT A HIGH TEMPERATURE.**  
**PROTECT HANDS WITH HEAT-INSULATED GLOVES.**

**4.3.7. Information key**

The display of the **INFO** key is subject to the **INFO VIEW** option being selected in the menu (Section 7.1.2).

If the  key is pressed while a program is running, the machine will provide information concerning the operation of the machine and the content of the program.

Contents of the Information menu:

- Input temperature
- Output temperature
- Moisture
- Drying time limit
- Drying time
- Rotation speed
- Electrical power used by the inverter.

## 4.4. Altering the drying programs

### 4.4.1. Specific modification of the program being executed

During the execution of a program, it is possible to modify the following program values. The alteration made only applies to the program that is running. Once the program has ended, the content will return to the original values.

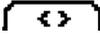
#### Values that can be altered and the range of alteration

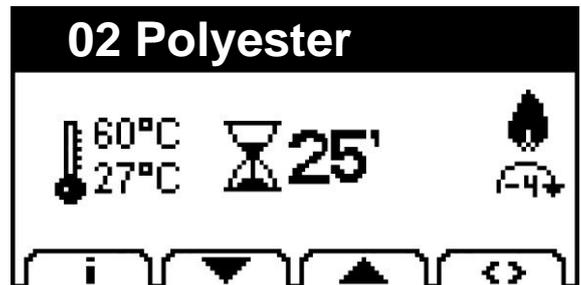
Setting	Unit	Programmable values	Notes
 Drying time	min	2 - 120	<b>Changing the drying time.</b> This option is only displayed in programs with control by length of time. It does not appear in programs with control by moisture level. <b>Drum Speed:</b> each step alters the speed of the drum by 2 rpm. The <b>information key</b> can be used to check the actual speed of the drum (Section 4.3.7).
 Drying temperature	°C °F	35 - 90 104 - 194	
 Drum rotation speed	rpm	25 - 45	

### Changing settings

- Key for changing / selecting setting .

 This icon is only visible when the **change while running** option has been activated in the OPTIONS submenu of the System Tools mode.

When the drying program has begun, the dryer's keyboard displays the icon . Press the  key to access to the changeable settings.



Selection order:

Drying time (only in programs with a drying period according to time)



Drying temperature



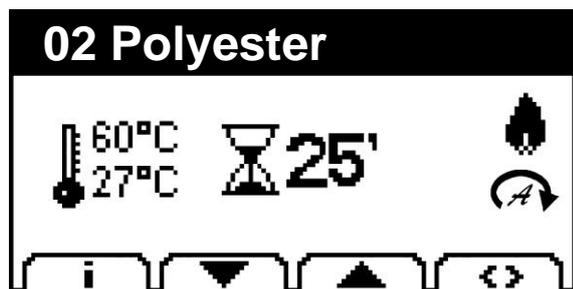
Drum speed (a setting displayed when accessing the change speed option)

The  key displays the change value keys.

- **Change value** keys. Press the   keys to alter the value of the selected setting. The alterable value is displayed on the screen highlighted and flashing.
- Drum rotation speed. The number accompanying the change drum speed icon indicates the alteration made compared with the rotation speed programmed in the Tables menu. Each step changes the speed of the drum by 2 rpm.

The change value keys disappear from the screen after a few seconds of inaction.

#### 4.4.2. Automatic speed control. AUTOSPEED



This function can be enabled in the OPTIONS menu of the System Tools mode. (Chapter 7).

When this feature is enabled, the drum rotation speed automatically changes depending on the degree of dryness detected by the moisture control, improving the movement of the linen inside the drum and increasing the performance of the machine.

The change in speed is indicated by the appearance of an icon on the program execution screen.

AUTOSPEED function disables the specific speed changes entered manually while a program is running. (Information on specific modifications can be found in Section 4.4.2.)

#### 4.5. Manual program. Definition and use

The **MANUAL PROGRAM** allows the user to create a custom program for immediate use. Once this program has been used, all the values programmed are deleted.



The option for using the manual program must be enabled in the OPTIONS menu from the System Tools menu. (Chapter 7).

Once enabled, the manual program option is displayed after the top four list on the program selection screen.

If no program has yet been run, the manual program will be at the beginning of the list of available programs.

Once selected, the manual program must be programmed by following the steps in the EDIT mode (Chapter 5). In this program, the "HEATING" option is always on.

## 4.6. Stop modes

### 4.6.1. Normal stopping

#### Pressing the key in the drying stage

If the temperature inside the dryer rises above 60 °C (140 °F), pressing the  key situates the program in the cooling safety stage. When the internal temperature falls below 60 °C (140 °F), the program ends.

If the temperature inside the dryer is below 60 °C (140 °F), pressing the  key ends the program.

#### Pressing the key in the cooling stage

During this stage, the  key is inoperative.

Open the door to finish the program.

### 4.6.2. Stop due to opened door

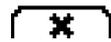
**Opening the door during the drying stage** will cause the rotation to halt and the heating to be turned off.

On re-closing the door, the following information will be displayed on screen:



#### **YES, continue the program**

The program will continue from the point where it was interrupted.



#### **NO, do not continue the program**

The dryer enters the cooling safety stage. When the internal temperature falls below 60 °C (140 °F), the program ends.

**Opening the door during the cooling stage** will cause the rotation to halt.

On re-closing the door, the cooling stage will continue.

If the door remains open for more than 10 seconds, the program ends.

### 4.6.3. General Stop



**Models ED460, ED660 ED900 and ED1250 only.**

Disconnecting the mechanically lockable breaker switch, located at the rear of the machine. COMPLETELY disconnects the machine from the power supply. Suitable for maintenance procedures and when the machine is idle for long periods.

#### **Mechanically locking breaker switch**

Set the breaker switch at the " 0 " position.

Fit a padlock on the bottom opening to prevent the breaker switch being handled by others.

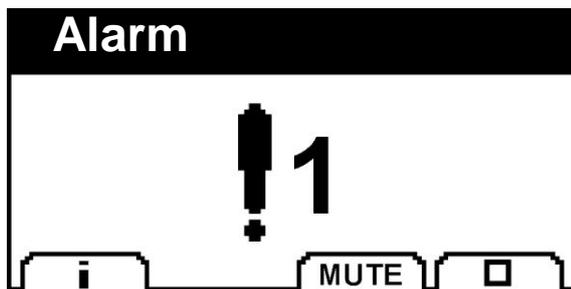
#### 4.6.4. Emergency stop button

**!** Models ED460, ED660 ED900 and ED1250 only. (In ED260 and ED340 models the emergency stop device is optional).

The machine is fitted with an emergency stop (in accordance to the model) identified by a red button on a yellow background located on the dryer front. The function of this device is to stop all machine functions immediately and to KEEP them stopped.

##### To activate the emergency stop:

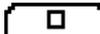
Press in the emergency stop button from the front. An audible warning is produced and emergency stop alarm code appears on the display.



##### To continue the operation:

Press the **MUTE** key to deactivate the audible warning.

Release the emergency stop by making a quarter turn in the direction of the arrow shown on the button itself.

Press the **STOP** key or the  key to turn off the alarm.

**!** NEVER LEAVE THE LINEN INSIDE THE DRYER AFTER A DRYING PROCESS, ESPECIALLY IF THE TEMPERATURE INSIDE THE MACHINE IS HIGH.

## 4.7. Pre-set programs

### 4.7.1. Content of the pre-set programs

#### Content for ED240/340/460/660 models

PROGRAM		DRYING STAGE						COOL DOWN STAGE (COOL DOWN)		
		TEMP.		DURATION CONTROL						
no.	name	°C	°F	function	min	moisture	limit (min)	min	°C	°F
41	COTTON	80	176	time	30	-----	-----	5	38	100
42	COTTON 1/2	70	158	time	15	-----	-----	5	38	100
43	SYNTHETICS	60	140	time	15	-----	-----	5	38	100
44	SYNTHETICS 1/2	60	140	time	10	-----	-----	5	38	100
45	IRON DRY	80	176	time	15	-----	-----	5	38	100
46	COTTON - CUPBOARD DRY	80	176	moisture level	----	dry	50	5	38	100
47	COTTON - IRON DRY	80	176	moisture level	----	damp for ironing	50	5	38	100
48	SYNTHETICS - CUPBOARD DRY	60	140	moisture level	----	dry	50	5	38	100
49	SYNTHETICS - IRON DRY	60	140	moisture level	----	damp for ironing	50	5	38	100
50	TOWELS FOLDING	80	176	moisture control	----	extra-dry	50	5	38	100

The contents of these programs is based on the basic operating mode. The options in the Configuration menu (Section 7.1) allow you to modify some settings of the preset programs.

#### Content for ED900/1250 models

PROGRAM		DRYING STAGE						COOL DOWN STAGE (COOL DOWN)		
		TEMP.		DURATION CONTROL						
no.	name	°C	°F	function	min	moisture	limit (min)	min	°C	°F
41	COTTON	80	176	time	30	-----	-----	5	38	100
42	COTTON 1/2	70	158	time	15	-----	-----	5	38	100
43	SYNTHETICS	60	140	time	15	-----	-----	5	38	100
44	SYNTHETICS 1/2	60	140	time	10	-----	-----	5	38	100
45	IRON DRY	80	176	time	15	-----	-----	5	38	100
46	COTTON - CUPBOARD DRY	80	176	moisture level	----	dry	40	5	38	100
47	COTTON - IRON DRY	80	176	moisture level	----	damp for ironing	40	5	38	100
48	SYNTHETICS - CUPBOARD DRY	60	140	moisture level	----	dry	40	5	38	100
49	SYNTHETICS - IRON DRY	60	140	moisture level	----	damp for ironing	40	5	38	100
50	TOWELS FOLDING	80	176	moisture control	----	extra-dry	40	5	38	100

The contents of these programs is based on the basic operating mode. The options in the Configuration menu (Section 7.1) allow you to modify some settings of the preset programs.

#### 4.7.2. Explaining the functions of the preset programs

##### PROGRAM

**Program number**

Number for the order occupied in the list of programs in the dryer's memory.

**Program name**

Identifies the program. It can be altered by the user.

##### TEMPERATURE

Programmed temperature value. Depending on the configuration in the Settings menu (Section 7.1) the temperature will be displayed in Celsius or Fahrenheit.

##### DURATION CONTROL

**Duration control by time.** The length of the drying phase is defined by time.

**Duration control by level of moisture.** The drying phase ends when the programmed moisture level is reached. The drying levels are defined in the Configuration menu (Section 7.1)

##### COOL DOWN

Gradual cooling after the drying stage. During this process, the extraction and rotation are in operation.

Conditions for ending the program:

The **value of the temperature** inside the dryer is lower than the set temperature.

**After the allotted time**, provided the temperature is below 60 °C (140 °F).

## 5. EDIT MODE

### 5.1. Defining editing concepts

Before accessing program editing, it is important to be familiar with the main concepts involved in this process.

**Function:** Each of the actions performed by the dryer during a program. The functions are always performed following the same sequence or order of execution.

**Stage:** The grouping of the functions into the order in which they are to be performed is defined as a stage. In a drying program there are basically two stages: the drying stage and the cooling stage.

**EASY operation.** In **EASY** operating mode the drying stage always consists of a single PHASE.

**PRO operation.** In **PRO** operating mode, the drying stage may consist of different PHASES up to a maximum of nine. A **PHASE** can be understood as the sequential repetition of certain functions.

**Program:** The combination of the drying and cooling stages, whose aim is to dry the fabrics involved.

**Edit:** Managing the programs.

Editing options:

- Creating a new program
- Modifying an existing program
- Copying an existing program into a new program. The preset programs can be copied.
- Deleting a program created by the user.

It is important to note that Programs 41 to 50 are factory set. The contents of these programs cannot be changed or deleted. Only the program name can be modified.

**Configuration:** The SYSTEM TOOLS (Chapter 6) mode groups together the settings that affect the operation of the dryer. Modifying the value of these settings allows the operation of the dryer to be adapted to the needs of the users while using the machine's possibilities to the maximum.



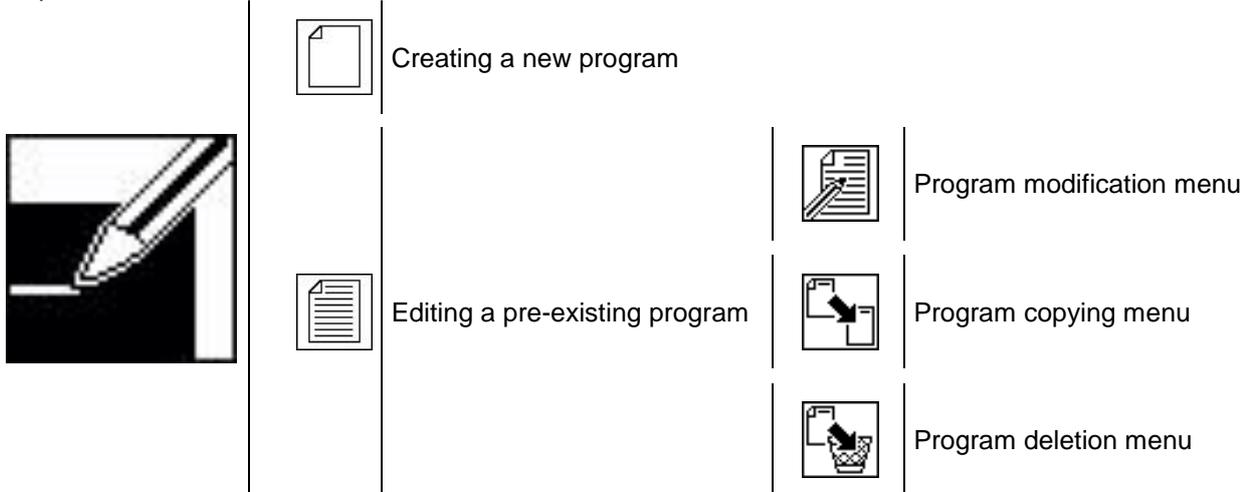
**The dryer leaves the factory with the basic configuration of operation options.**

**This configuration allows the machine to be programmed with many possibilities but with great simplicity.**

**Do not modify the configuration parameters without knowing exactly what purpose they have in the functioning of the machine as a whole.**

## 5.2. Programming mode menus

Map of the contents of the **EDIT mode: menus and submenus**



## 5.3. General observations

When selecting an empty program for programming, the dryer control allows the user to adjust the various program settings sequentially. Confirming each step of the programming leads automatically to the next option.

### 5.3.1. Two operating modes

There are two operating modes that can be selected in the options menu of the System Tools mode (Section 7.1.2).

- **EASY operation:** The default operating mode. An operating mode with easy to use programming. The contents of the programs consist of a single phase and a final cooling. This allows the majority of fabrics to be dried.
- **PRO operation:** A mode that allows program settings to be adjusted in greater detail. It allows the programming of multiple phases and the final cooling. It allows the drying of fabrics that require a complex process.

At each step of the programming, the availability is specified for each operating mode.

### 5.3.2. Programming a phase

#### Selecting and identifying the program

Functions programmable in **EASY** mode and **PRO** mode.

This allows the user to select the number of the program to be created.

- **Program number:** The dryer will display the numbers of the empty programs.
- **Program identification:** This allows the user to identify the program by name or alphanumeric code.

#### Duration of the drying

Functions programmable in **EASY** mode and **PRO** mode.

It should be stressed that the selecting the drying time control mode substantially determines the operation of the dryer.

- **Duration control by time.** In the programming process the drying time is selected (time in minutes). Once the drying time has ended, the program moves on to the next phase (**PRO** mode) or on to the cooling stage, regardless of the moisture level of the fabrics.
- **Duration control by level of moisture.** (Only in machines with a moisture sensor option.) In the programming process the length of the drying stage is selected according to the level of moisture

contained in the fabrics and the time limit for the duration of this process. The level of moisture contained in the fabrics is constantly monitored.

When the moisture level falls to the programmed level or the set time limit ends, the program moves on to the next phase (**PRO** mode) or on to the cooling stage.

### Temperatures

Programming the drying temperatures.

Functions that can be programmed:

- **Programming the internal temperature of the drum.** A function that can be programmed in **EASY** mode and **PRO** mode. It allows the temperature inside the dryer drum to be programmed.
- **Programming the temperature of the air input.** This is a function that can only be programmed in **PRO** mode. This allows the user to program the temperature limit for the exhaust air from the gas burner or for the series of electric heating elements.

### Mechanical action

Functions that can only be programmed in **PRO** mode.

- **Programming the rotation speed.**  
There are three preset speeds that can be selected in programming.  
The rpm for each speed is set in the TABLES menu in System Tools (Section 7.1.3).
- **Programming the reverse rotation sequence.**  
There are five preset sequences that can be selected in programming.  
Each sequence has three settings:
  - Left turn time (anticlockwise direction). Programming in minutes.
  - Pause time. Programming in seconds.
  - Right turn time (clockwise direction). Programming in minutes.The rotation and pause times are set in the TABLES menu in System Tools (Section 7.1.3).

### Alert beep and new phase

Functions that can only be programmed in **PRO** mode.

- This **alert beep** can be programmed at the end of each phase.  
The duration of the beep cannot be programmed.
- **Access to programming a new phase.**  
Up to a maximum of nine new phases can be programmed.  
Accessing a new phase situates the programming in the **Drying duration** stage.

### Cool down

Functions programmable in **EASY** mode and **PRO** mode.

End of program stage.

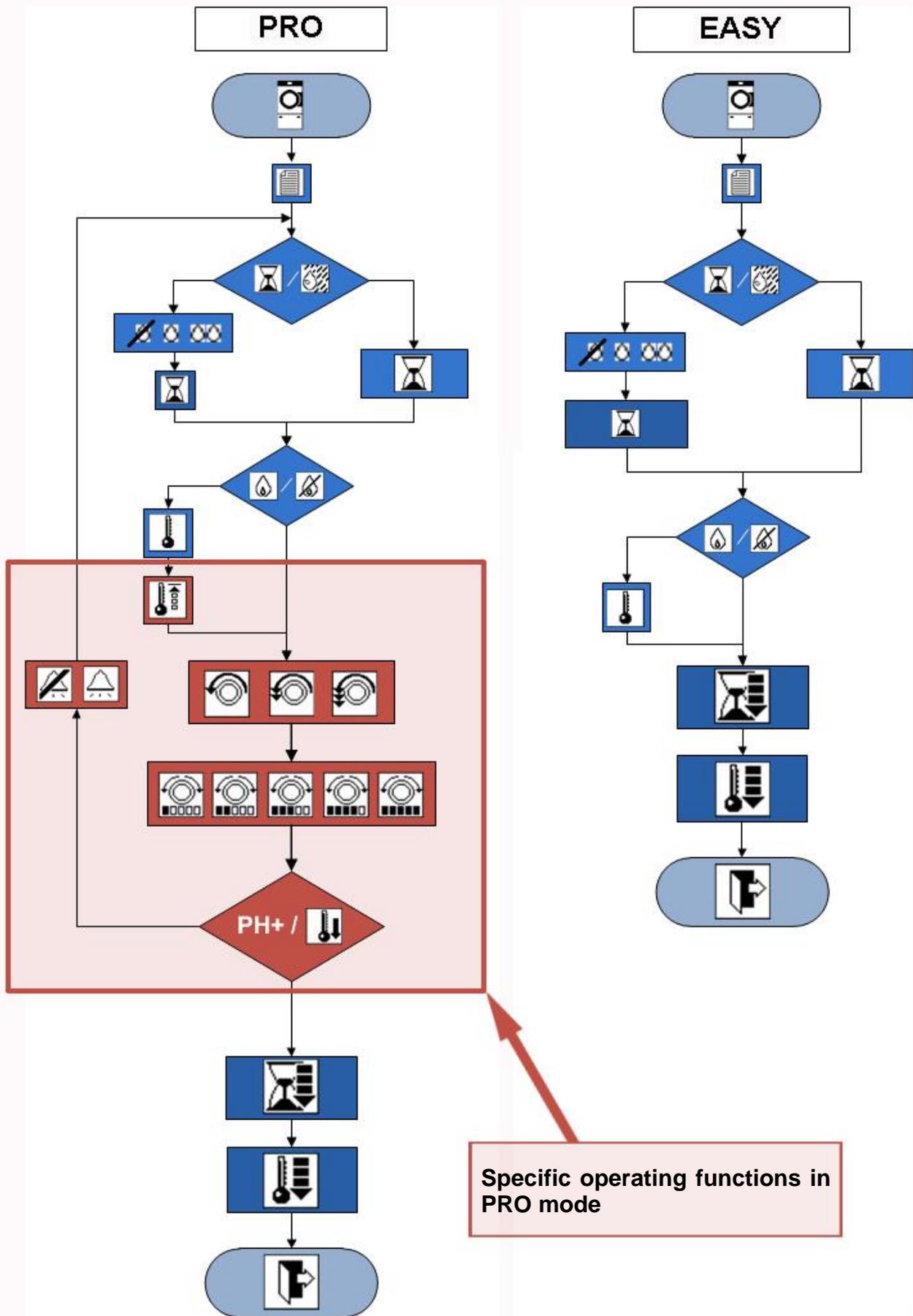
During the cooling stage the heating system is switched off and the rotation of the drum and the extraction continue operating to reduce the temperature of the clothes at the end of the drying program, thereby avoid creases in the fabrics and the risk of spontaneous combustion.

- **Normal cooling.** In the corresponding stage, a stage duration and a target temperature are programmed.  
The program ends when one of the following conditions is satisfied:
  - The programmed time ends and the internal temperature of the dryer is below 60 °C (140 °F).
  - The internal temperature of the dryer is equal to or less than the programmed target temperature.
- **Safety cooling.** Cooling that is activated when a drying program is interrupted by pressing the  key or by opening the door during the normal cooling stage. The program ends when the internal temperature of the dryer is at or below 60 °C (140 °F).

**VERY IMPORTANT!!!**

The cooling stage is intended to reduce the temperature inside the drum, thereby preventing creases in the fabrics and reducing the risk of spontaneous combustion from static electricity. As a security measure it is highly advisable to program enough time to allow the fabrics to cool.

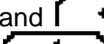
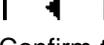
5.3.3. Program diagrams



Specific operating functions in PRO mode

**5.4. Creating a new program**

 Some of the features listed below are only programmable in **PRO** mode.

- In Edit mode, select the icon for creating a new program .
- Select a number for the program and press the  key.
- Enter the name of the program (Fig. 5.2). Use the  key to select the characters. If it is pressed and held down it will select characters in a descending order. Move from one digit to another using the  and  keys. Pressing and holding down  deletes the character on the left.
- Confirm the name entered with the  key.
- Access to the next screen is only possible if the cursor is located after the last character.

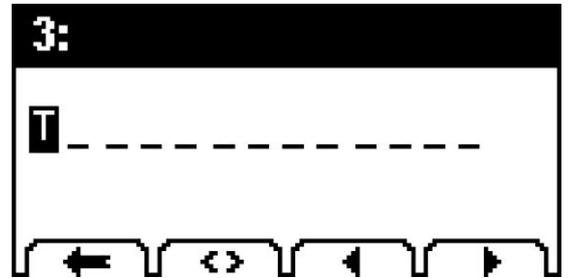


Fig. 5.2

- Select the type of control for the **length of the drying period** (Fig. 5.3):



by time



by final moisture level



Fig. 5.3

- If the length of the drying period has been selected **by time**, increase or decrease the length of the drying period with the  and  keys (Fig. 5.4).

Maximum programmable time: 120 min.  
Minimum programmable time: 1 min.



Fig. 5.4

- If the length of the drying period has been selected **by setting the moisture level**, select the desired final moisture level (Fig. 5.5):



damp for ironing



dry



extra-dry

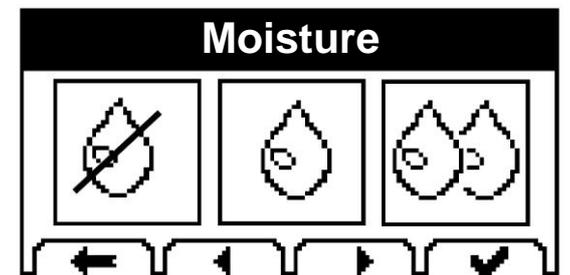


Fig. 5.5

- Select the maximum drying time. Increase or decrease the time limit for the drying period with the  and  keys (Fig. 5.6).

Maximum programmable time: 80 min.  
Minimum programmable time: 1 min.

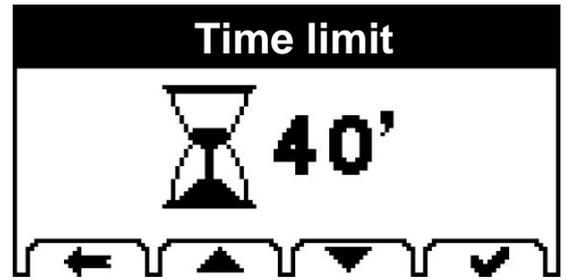


Fig.5.6

- Then select either the phase with or without heating, as desired (Fig. 5.7).
- If the key for the phase without heating is selected 
  - In **EASY** mode, the system will move on to the cooling stage programming (Fig. 5.14).
  - In **PRO** mode, it will move on to speed spin programming (Fig. 5.10).

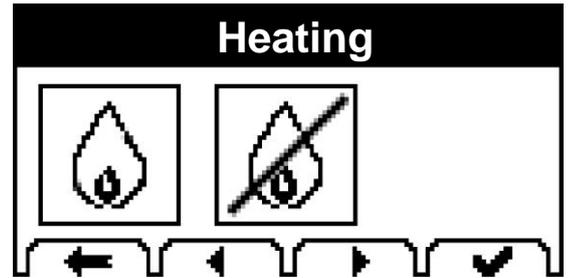


Fig. 5.7

- If the phase with heating has been selected, the user will access the drying temperature programming screen (Fig. 5.8). Increase or decrease the drying temperature with the  and  keys.

Maximum programmable temperature: 90 °C (194 °F);  
Minimum programmable temperature: 35 °C (95 °F).

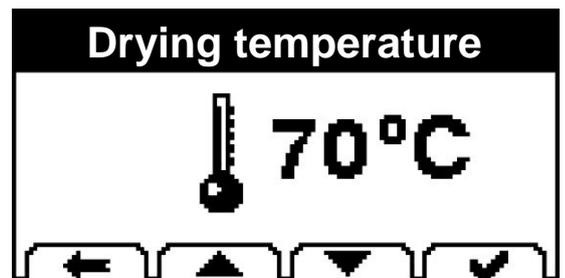


Fig. 5.8

- Programme the input temperature.  
 Function that can only be programmed in **PRO** mode.

Increase or decrease the drying temperature with the  and  keys (Fig. 5.9).

Maximum programmable temperature: from 190 °C (374 °F) to 230 °C (446 °F) depending on the type of heating (electric, steam, gas);  
Minimum programmable temperature: 40 °C (104 °F).

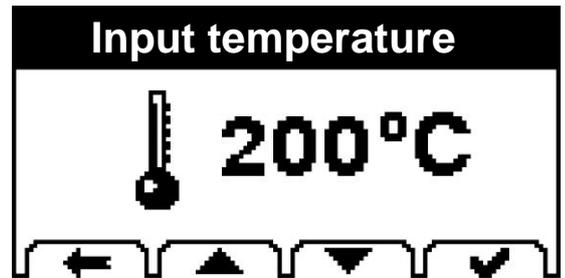


Fig. 5.9

- Select the spin speed (Fig. 5.10).  
 Function that can only be programmed in **PRO** mode.

(See options tables: Section 7.1.3).

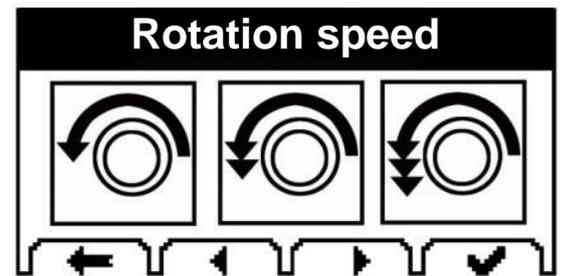


Fig. 5.10

- Select the reverse spin option (Fig. 5.11).
- ! Function that can only be programmed in **PRO** mode.

(See options tables: Section 7.1.3).

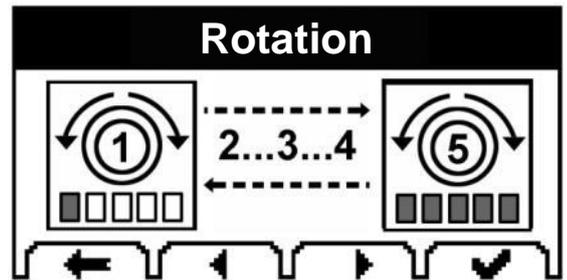


Fig. 5.11

- Select whether an acoustic warning is desired at the end of the phase (Fig. 5.12).

! Function that can only be programmed in **PRO** mode.

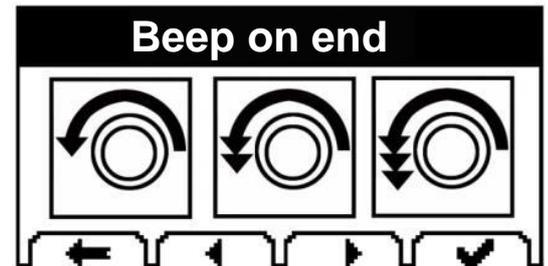


Fig. 5.12

- Programme a new phase or access the programming for cooling. (Fig. 5.13)

! Function that can only be programmed in **PRO** mode.

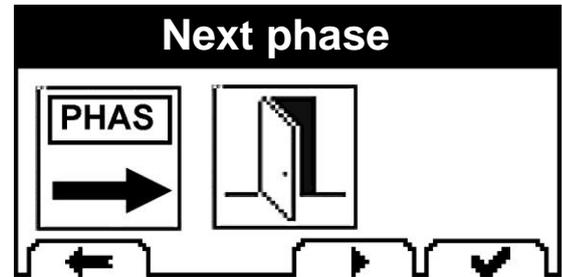


Fig. 5.13

- Select the cooling time. Increase or decrease the cooling time with the  and  keys (Fig. 5.14)

Maximum programmable time: 150 min;  
Minimum time: 2 min.

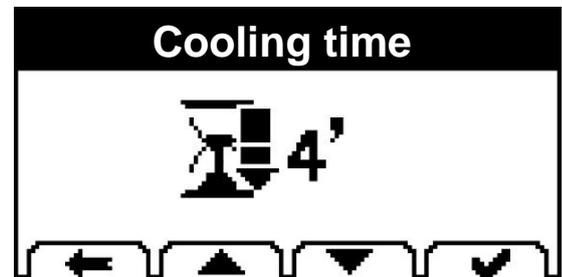


Fig. 5.14

- Select the final cooling temperature. Increase or decrease the final cooling temperature with the  and  keys (Fig. 5.15)

Maximum programmable temperature 60 °C (140 °F);  
Minimum temperature: 21 °C (70 °F).

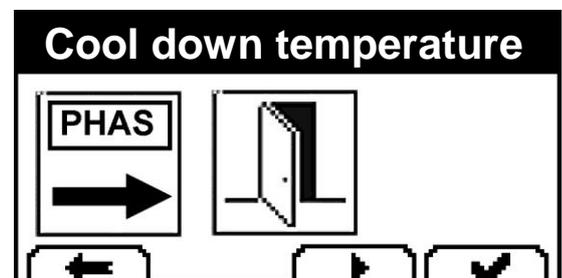


Fig. 5.15

**5.5. Editing a pre-existing program**

Pressing the key for editing a pre-existing program  accesses the following menus:

-  Menu for editing a phase of a pre-existing program
-  Copying a program
-  Deleting a program

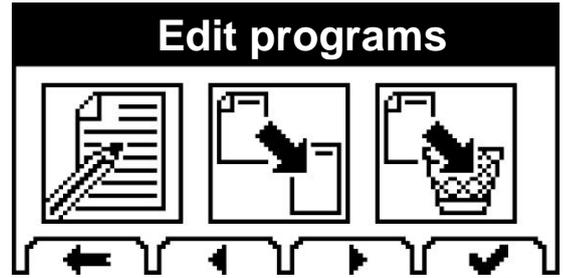


Fig. 5.16

**5.5.1. Modifying a phase of a pre-existing program**

- Select the icon to edit a phase of a pre-existing program . The dryer will display a screen with the editable programs.
- Select the program to be edited.
- In **EASY operating mode**, having selected the program to edit, follow the same process as that for programming a new program (Section 5.4. **Programming a new program**).
-  Remember that on editing a preset program, only the name of the program can be altered.
- In **PRO operating mode** the programs allow multiple phases. Once the program to be edited has been selected, the editing submenu will be displayed (Fig. 5.17) which will allow the user to:

-  Editing a phase
-  Inserting a phase before the selected phase
-  Inserting a phase after the selected phase
-  Deleting a phase

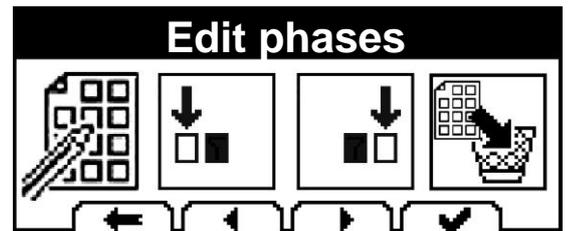


Fig. 5.17

**5.5.2. Copying a program**

- Select the icon for copying a program phase . The dryer will display a list of the existing programs.
- Select the program to be copied: the source program for the copy.



Fig. 5.18

- Select the number of the new program: The number of the target program for the copy.

 Remember that the new copied program can be edited later.

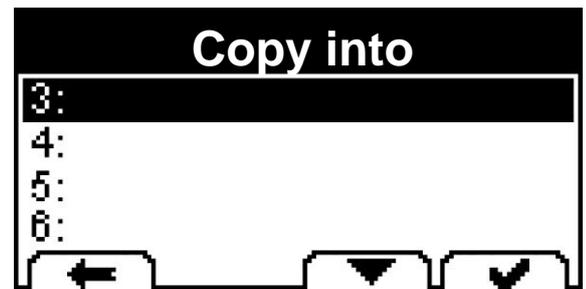


Fig. 5.19

### 5.5.3. Deleting a program

- Select the  icon for deleting a program. The dryer will display the list of programs programmed by the user.

- Select the program to be deleted.



Fig. 5.20

 Remember that factory preset programs cannot be deleted.

## 6. SYSTEM TOOLS MODE

The control system provides a group of tools aimed at preparing, personalising, informing and controlling the overall operation of the dryer.

Within this group, the tools are grouped into different intervention areas:

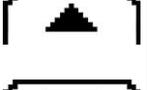
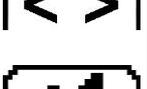
- CONFIGURING the system.
- INFORMATION regarding the dryer's features, executed functions and alarms detected by the machine's control system.

Information on how to manage and use these areas is displayed on the screen in written text.

### 6.1. Accessing and moving between the intervention areas

	<p>The SYSTEM TOOLS mode is accessed from the Main Menu.</p> <p>Information on how to manage and use these areas is displayed on the screen in written text.</p> <p>Use the keys on the control panel to access the different blocks in the TOOLS mode.</p>
---	---

#### Keys for moving between the intervention areas

	Horizontal movement
	
	Vertical movement
	Save the selected value or setting
	Selecting/modifying settings and values
	Access to the selected menu or block
	Back to higher level

## 6.2. Menus that make up the System Tools mode

<b>CONFIGURATION</b> (Chapter 7)	Settings	General settings  Options	Language Temperature unit Beep on keypress Screen contrast Blink on end Max. lint f. cl.time Machine ID:  Operating mode Manual program Modif. in proc. Info view Autospeed Default programs
	Access codes	Tables  Access programs Access tools Change code	Left rotation No rotation Right rotation speed wet dry extra-dry
<b>INFORMATION</b> (Chapter 8)	General	Model Software version Available programs AFS MSN FAN	
	Work counters	Working hours Program count Program counters Alarm counters	

## 7. CONFIGURATION MENU

The CONFIGURATION menu contains many settings that allow the operation of the dryer to be adapted to the specific needs of each user.

Details of the CONFIGURATION menu

### 7.1. Settings

#### 7.1.1. General settings

**Language:** Permits selecting the language of all the written messages.

<u>Programmable values</u>	: ESP (Spanish)   ENG (English)   FRA (French), ITA (Italian), DE (German), CAT (Catalan)
<u>Factory settings</u>	: depending on specification.
<u>Default value</u>	: English

**Temperature unit:** Permits selecting the unit that the temperature values are displayed in.

<u>Programmable values</u>	: C (degrees Celsius) , F (degrees Fahrenheit)
<u>Factory settings</u>	: depending on specification.
<u>Default value</u>	: degrees Celcius

**Beep when pressing a key:** An acoustic warning that the dryer emits when a key is pressed.

<u>Programmable values</u>	: YES / NO
<u>Default value</u>	: YES

**Screen contrast:** Permits modifying the contrast on the dryer screen.

<u>Programmable range</u>	: 0 (less contrast) ... 9 (more contrast)
<u>Default value</u>	: 4

**Blink on end:** Shows end of cycle screen flashing.

<u>Programmable values</u>	: YES / NO
<u>Default value</u>	: YES

**Lint filter cleaning time:** This allows the user to set a number of hours after which, if the filter door has not been opened, the dryer will display a filter cleaning reminder.

<u>Programmable range</u>	: from 0 to 48 hours. Programming 0: deactivates the cleaning reminder
<u>Default value</u>	: 2

**Machine ID:** This parameter assigns a network identifier to the dryer. This identifier enables the communication of the dryer with the environment through a system based on RS-485 protocol.

<u>Programmable range</u>	: 0 (disabled communications) ... 1-99 (enabled communications)
<u>Default value</u>	: 0

### 7.1.2. Options:

**Operating mode:** This option allows the user to select two operating modes.

Programmable values : **EASY**. Single phase drying programs  
**PRO**. Multi-phase programs and other programmable functions  
Default value : **EASY**

**Manual program:** Its activation enables the display and use of the manual program in the program selection menu (further details in Section 4.5).

Programmable values : YES / NO  
Default value : YES

**Modification in process:** Its activation allows the user to modify programs while a program is running (further details in Section 4.4).

Programmable values : YES / NO  
Default value : YES

**INFO view:** This option disables the display of the INFO key and access to the information described in Section 4.3.7.

Programmable values : YES. INFO key enabled  
NO. INFO key disabled  
Default value : YES

**AUTOSPEED:** When this option is enabled, the drum speed automatically changes depending on the moisture level detected in the fabrics (further details in Section 4.4.3).

Programmable values : YES / NO  
Default value : YES

**Default programs:** Its activation enables the display and use of the pre-set programs in the program selection menu (further details in Section 4.5).

Programmable values : YES / NO  
Default value : YES

**7.1.3. Tables:**

Tables of programmable values and settings, depending on the operating mode and the model of dryer.

**Drum rotation without pauses or reversal of the direction of rotation.**

To obtain rotation in a single direction and without reversal pauses, the following should be programmed:

- No rotation: 0 seconds
- Right rotation: 0 minutes.

**Criteria for altering the options for drum rotation speed and moisture level.**

When altering the values of these options, the order from lowest to highest must be kept at all times. The value selected must always be higher than the value of the lower option and lower than the value of the higher option.

OPTION		MODE		unit	range	DEFAULT VALUES		
		EASY	PRO			ED260 ED340	ED460 ED660	ED900 ED1250
Left rotation	1	no	yes	sec / min	5'' – 20'	10''	10''	10''
No rotation	1			sec	0 – 40''	2''	2''	2''
Right rotation	1			sec / min	0 – 20'	10''	10''	10''
Left rotation	2	no	yes	sec / min	5'' – 20'	20''	20''	20''
No rotation	2			sec	0 – 40''	2''	2''	2''
Right rotation	2			sec / min	0 – 20'	20''	20''	20''
Left rotation	3	yes	yes	sec / min	5'' – 20'	40''	40''	40''
No rotation	3			sec	0 – 40''	2''	2''	2''
Right rotation	3			sec / min	0 – 20'	40''	40''	40''
Left rotation	4	no	yes	sec / min	5'' – 20'	2'	2'	2'
No rotation	4			sec	0 – 40''	2''	2''	2''
Right rotation	4			sec / min	0 – 20'	2'	2'	2'
Left rotation	5	no	yes	sec / min	5'' – 20'	4'	4'	4'
No rotation	5			sec	0 – 40''	3''	3''	3''
Right rotation	5			sec / min	0 – 20'	4'	4'	4'
Rotation speed	1	no	yes	rpm	23 - 48	42	36	28
Rotation speed	2	yes	yes		24 - 49	46	40	32
Rotation speed	3	no	yes		25 - 50	48	44	36
Damp moisture level		yes	yes		1 - 8	5	5	5
Dry moisture level		yes	yes		2 - 9	7	7	7
Extra dry moisture level		yes	yes		3 - 10	9	9	9

**7.2. Access codes**

- **Access to programs:** Enables or disables the code protection for accessing the program editing menu.
- **Access to tools:** Enables or disables the code protection for accessing the system tools menu.
- **Change code:** Allows the access code to be changed.  
**Initial code:** 12341234.  
**Characteristics of the new code:** Any combination of numbers 1 2 3 4 in each of the eight defined positions.  
**Entering the figures:** Using the multi-function keyboard. See Figure 5.1

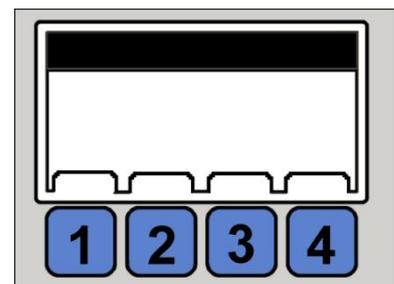


Fig. 5.1

## 8. INFORMATION MENU

This provides information on the dryer's characteristics.  
It records operating settings and incidents during the life of the machine.

Details of the INFORMATION menu.

### 8.1. General information

**Machine model:** Indicates the model of the dryer.

**Software version:** Displays the version of the software installed on the machine.

**Number of programs available:** Displays the number of empty programs available in the machine's memory.

### 8.2. Counters

**WORK COUNTERS:** Provides information on the hours of operation of the machine and the total number of programs run.

**PROGRAM COUNTERS:** Indicates the number of times each program has been executed.

**ALARM COUNTERS:** Contains a list of all alarms in the machine and the number of times they have occurred.

Initialising the values of the three counters is an operation reserved exclusively for the Authorised Technical Service.

## 9. PERSONAL PROTECTION WEAR



### TO AVOID THE RISK OF ENTRAPMENT

- WEAR SUITABLE AND CLOSED FITTING CLOTHING.
- AVOID WEARING JEWELLERY OR ACCESSORIES ON THE HANDS, ARMS, NECK, ETC.
- AVOID USING THE MACHINE UNLESS ALL THE COVERS AND SAFETY GUARDS ARE CORRECTLY IN PLACE.



ONCE THE PROGRAM HAS ENDED, THE LINEN AND THE INSIDE OF THE DRUM MAY BE AT A HIGH TEMPERATURE.

PROTECT HANDS WITH HEAT-INSULATED GLOVES.

## 10. TROUBLESHOOTING

### 10.1. Troubleshooting operation problems

PROBLEM	PROBABLE CAUSE	ACTION
<b>DRIED LINEN MOISTURE LEVEL TOO HIGH</b>	Excessive residual moisture in the fabrics being dried	Adjust the spin process.
	Insufficient drying time	Alter the program to increase the drying time.
	Temperature too low	Alter the program to increase the temperature.
<b>INCORRECT DRUM SPEED</b>	Inverter breakdown	Call the Authorised Technical Services.
	Fault in the drum rotation detector	Call the Authorised Technical Services.
<b>FLAME TOO ORANGE (GAS VERSION)</b>	Faulty air intake filter	Clean the filter.
	Poor air/gas mixture	Check, and if necessary correct, the position of the venturi. If the problem persists, contact the Authorised Technical Services.
<b>THE BURNER CAN NOT BE IGNITED (GAS VERSION)</b>	Manual gas flow valve closed	Open the manual gas flow valve.
	Insufficient supply of gas	Ask a Registered Installation Contractors to check the gas supply pressure and flow rate. If the problem persists, contact the Authorised Technical Services.
	Gas ignition system defective or ignition electrodes misplaced	Call the Authorised Technical Services.
<b>POOR FLAME SPREAD (GAS VERSION)</b>	Insufficient supply of gas	Ask a Registered Installation Contractors to check the gas supply pressure and flow rate. If the problem persists, contact the Authorised Technical Services.
	Blocked burner holes	Call the Authorised Technical Services.

## 10.2. Alarms

To increase safety levels in operating the dryer and to protect both the linen being dried and the machines components, the microprocessor has the capacity to detect the presence of the most significant malfunctions that might possibly occur. An audible alert is automatically activated once the alarm is triggered.

### Keys involved in the alarm screen

KEY	FUNCTION
	Information on the cause of the alarm
	Stopping the alert beep
	Cancelling the alarm (if possible)

The occurrence of an alarm automatically causes the heating system to switch off and the cancellation of the program.

The drum rotation and the exhaust fan continue to work as long as the alarm does not affect the control of these components.

Once an alarm is detected, press the key . The display will show the report corresponding to the alarm. Press the  key to cancel the audible alert.

Once the problem that caused the alarm has been solved, press the  key. The alarm will be cancelled.



### CAUTION!

#### Procedure in the event of an alarm

Any procedure aimed at rectifying the fault provoking an alarm that involves removing the protection covers has to be performed by the Customer's Technical Assistance Service or by the Authorised Technical Assistance Service, and never by the user of the machine.

Never carry out an intervention that is not described in this section.



### DANGER!

#### BEFORE COMMENCING ANY PROCEDURE WHICH INVOLVES REMOVING THE PROTECTION COVERS:

- DISCONNECT AND MECHANICALLY LOCK THE MACHINE'S BREAKER SWITCH.
- CLOSE AND MECHANICALLY LOCK THE MANUAL GAS VALVE (machines heated with gas).
- WAIT A MINIMUM OF FIVE MINUTES TO ELIMINATE THE RISK OF ANY RESIDUAL VOLTAGE AND TO ENSURE THAT THERE ARE NO PARTS IN MOVEMENT.
- CHECK THAT THE TEMPERATURE OF THE MACHINE IS NOT TOO HIGH TO CARRY OUT THE PROCEDURES SAFELY.

## 10.2.1. List of main alarms

CODE	ALARMS
1	Emergency stop
2	Assembly error
3	Inverter communication fault
4	Inverter overcurrent
5	Motor overheating
6	General inverter fault
7	Inverter configuration fault
8	Lint door open
9	Overtemperature
10	Heating fault
11	Input temperature probe

CODE	ALARMS
12	Output temperature probe
13	Input thermostat alarm
14	Output thermostat alarm
15	Rotation fault
16	Gas ignition fault
17	Electric heating fault
18	Heating fault
19	Vacuum fault
20	Fan fault (*)
21	Model error

(\*) In ED900 and ED1250 models that are equipped with two inverters, when Alarm 20 corresponding to the fan inverter is activated, the screen will display this alarm together with the alarm number corresponding to the drum inverter, indicated in brackets.

The following table shows the inverter's alarm numbers together with their description:

CODE	ALARMS
0	Fault due to communication failure between the microprocessor and the inverter
4	Fault due to disconnection of the motor's thermal protection (Klixon)
9	Fault due to an error in initialising the inverter or machine model
39	Fault due to general failure of the inverter
41/42/43	Fault due to a failure in the inverter's output phase
47	Fault due to the inverter being overloaded
48	Fault due to under-voltage in the inverter's DC bus
49	Fault due to overvoltage in the inverter's DC bus
50	Fault due to a short circuit in the motor
52	Fault due to a failure in the inverter's input phase
55	Fault due to inverter over temperature
56	Fault due to a short circuit between the inverter's output phase and the dryer's earth.
59	Fault due to inverter overcurrent
32/33/37/38/45 46/53/54/6/62	Fault due to a failure of the inverter's internal control

## 10.2.2. Troubleshooting

<b>1</b>	<b>EMERGENCY STOP</b>
Emergency Stop button activated.	
<b>Probable cause:</b> Emergency Stop button activated. Fault in the device or in the connection circuit.	
<b>Procedure:</b> Release the Emergency Stop button. Press the <b>STOP</b> key to start the machine. If fault persists, disconnect the power supply and contact Authorised Technical Services.	
<b>2</b>	<b>ASSEMBLY ERROR</b>
Incorrect microprocessor board connections.	
<b>Probable cause:</b> Incorrect connections or manipulation of the microprocessor board.	
<b>Procedure:</b> Disconnect the power supply and contact Authorised Technical Services.	
<b>3</b>	<b>INVERTER COMMUNICATION FAULT</b>
Communication fault between the dryer control microprocessor and the drum motor inverter.	
<b>Probable cause:</b> Fault in the electrical supply from the inverter. Fault in the communication wiring. Fault in the inverter's communication circuits or the microprocessor.	
<b>Procedure:</b> Disconnect the machine from the power supply and reconnect it. If fault persists, disconnect the power supply and contact Authorised Technical Services.	

4	INVERTER OVERCURRENT
Overcurrent detected by the drum cylinder motor inverter.	
<p><b>Probable cause:</b>            Excessive motor power consumption due to obstruction of the rotation, seizing or malfunction of the transmission systems.            Overloading or excessively wet linen that exceeds the maximum power capacity of the motor.            Fault or short circuit in the motor.            Fault or short circuit in the motor's connection wiring.            Inverter fault.</p>	
<p><b>Procedure:</b>            Check that nothing is obstructing the drum and preventing it from turning.            Disconnect the machine from the power supply and reconnect it.            If the fault occurs for A SECOND TIME, disconnect the power supply and contact your Authorised Technical Service.</p> <p><b>CAUTION!</b> Do not switch the dryer off and on various times. Causing the alarm to appear repeatedly can damage the inverter or the motor.</p>	

5	DRUM MOTOR OVERHEATING
Tripping of the drum motor's thermal protection.	
<p><b>Probable cause:</b>            Excessive motor power consumption due to obstruction of the rotation, seizing or malfunction of the transmission systems.            Overloading or excessively wet linen that exceeds the maximum power capacity of the motor.            Fault or short circuit in the motor.            Fault or short circuit in the motor's connection wiring.</p>	
<p><b>Procedure:</b>            Check that nothing is obstructing the drum and preventing it from turning.            Check that there is no obstruction of the rear cover vents.            If the ambient temperature of the premises exceeds 40 °C (104 °F), improve the ventilation of the premises.            Disconnect the machine from the power supply and reconnect after five minutes.            If fault persists, disconnect the power supply and contact Authorised Technical Services.</p>	

6	GENERAL INVERTER FAULT
Unidentified inverter fault.	
<p><b>Probable cause:</b>            Fault detected by the inverter's auto-protection system.</p>	
<p><b>Procedure:</b>            Disconnect the power supply from the machine and reconnect after five minutes.            If fault persists, disconnect the power supply and contact Authorised Technical Services.</p>	

<b>7</b>	<b>INVERTER CONFIGURATION FAULT</b>
Lack of concordance between the inverter operating settings and the microprocessor memory settings.	
<b>Probable cause:</b> Inverter not initialised. Accidental modification or loss of the inverter configuration settings.	
<b>Procedure:</b> Disconnect the power supply from the machine and reconnect after five minutes. If fault persists or is frequently repeated, contact Technical Assistance Service.	

<b>8</b>	<b>LINT DOOR OPEN</b>
Indication that the door of the protective filter is open in a closed filter door situation or while a program is running.	
<b>Probable cause:</b> Poorly closed filter door. Fault in the system detecting the condition of the door.	
<b>Procedure:</b> Disconnect the power from the machine and check that the door is properly closed and that there is no blockage preventing the door from closing properly. If the problem is not resolved or recurs frequently, contact the Authorised Technical Service.	

<b>9</b>	<b>OVER TEMPERATURE</b>
Over-temperature detected by the machine's output control.	
<b>Probable cause:</b> Fault in the output temperature control system. Fault in the machine's individual temperature controls.	
<b>Procedure:</b> Disconnect the power supply and contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	

<b>10</b>	<b>HEATING FAULT</b>
The dryer does not detect the increase in the internal temperature when the heating system is on.	
<b>Probable cause:</b> Fault in the heating system. Fault in the internal temperature detection system.	
<b>Procedure:</b> Disconnect the power supply from the machine and reconnect after five minutes. If fault persists or is frequently repeated, disconnect the power supply and contact your Authorised Technical Service. In dryers with gas heating, close the manual gas inlet valve.	

<b>11</b>	<b>INPUT TEMPERATURE PROBE FAULT</b>
Fault in the system detecting the input temperature into the dryer drum. Input temperature values outside the set range.	
<b>Probable cause:</b> Fault in the detection system.	
<b>Procedure:</b> Disconnect the power supply and contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	
<b>12</b>	<b>OUTPUT TEMPERATURE PROBE FAULT</b>
Fault in the detection system for the output temperature of the dryer drum. Output temperature values outside the set range.	
<b>Probable cause:</b> Fault in the detection system.	
<b>Procedure:</b> Disconnect the power supply and contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	
<b>13</b>	<b>INPUT THERMOSTAT ALARM (machines with electric heating only)</b>
Disconnection of the safety thermostat controlling the input temperature.	
<b>Probable cause:</b> Input temperature control thermostat circuit open. Fault in the detection system.	
<b>Procedure:</b> Disconnect the power supply and contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	
<b>14</b>	<b>OUTPUT THERMOSTAT ALARM</b>
Disconnection of the safety thermostat controlling the output temperature.	
<b>Probable cause:</b> Output temperature control thermostat circuit open. Fault in the detection system.	
<b>Procedure:</b> Disconnect the power supply and contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	
<b>15</b>	<b>ROTATION FAULT</b>
Drum rotation fault.	
<b>Probable cause:</b> Obstruction, seizing or poor functioning of the transmission systems between the motor and the drum. Overloading or excessively wet linen that exceeds the maximum power capacity of the motor. Fault in the system detecting the drum rotation.	
<b>Procedure:</b> Check that the load is not excessive or that the linen is too wet. Disconnect the power supply and contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	

<b>16</b>	<b>GAS IGNITION FAULT (machines with gas heating only)</b>
<p>Persistent detection of a faulty flame. (This alarm only occurs on machines with gas heating.) When this alarm is first displayed on the screen, a compulsory purge time begins during which the system disables the <b>STOP</b> key.</p>	
<p><b>Probable cause:</b> Fault in the gas supply, or the manual gas inlet valve is closed. Incorrect gas supply pressure. Poor adjustment of the primary air supply (Venturi) or excessive suction. Fault in the ignition system or in the burner flame detection. Fault in the control for opening the gas valve. Disconnection of the input safety thermostat. Poor suction.</p>	
<p><b>Procedure:</b> Check that the gas inlet valve is open. Do not disconnect the machine's power supply. After the purge time has ended, press the <b>STOP</b> button to turn off the alarm and repeat the program start-up. If the problem persists:</p> <ul style="list-style-type: none"> <li>• Close the manual gas inlet valve.</li> <li>• The dryer will begin the cooling stage.</li> <li>• Once it has finished, disconnect the machine from the power supply.</li> <li>• Close the manual gas inlet valve.</li> <li>• Contact Authorised Technical Services.</li> </ul>	

<b>17</b>	<b>ELECTRIC HEATING FAULT</b>
<p>Faulty disconnection of the heating system. (This alarm only occurs on machines with electric heating.)</p>	
<p><b>Probable cause:</b> Fault in the contactor(s) controlling the heaters. Permanent power supply to the contactors.</p>	
<p><b>Procedure:</b> Switch off the power supply to the machine. Contact Authorised Technical Services.</p>	

<b>18</b>	<b>HEATING FAULT</b>
<p>Uncontrolled heating connection.</p>	
<p><b>Probable cause:</b> Undetermined error in the machine control or in the heating system.</p>	
<p><b>Procedure:</b> Switch off the power supply to the machine. Contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.</p>	

<b>19</b>	<b>FAULTY SUCTION</b>
Detection of suction incorrect or out of range in the suction safety pressure switch.	
<b>Probable cause:</b> Damaged or blocked exhaust duct. Fault in the exhaust motor. Fault in the suction detection system.	
<b>Procedure:</b> <b>Operations reserved for Customer's Technical Assistance Service.</b> Switch off the power supply to the machine. In dryers with gas heating, close the manual gas inlet valve. Clean the exhaust ducts. Check and clean the exhaust fan. Check that the suction control tube is properly fitted and clean at its ends. Check the connection for the automatic exhaust switch. Reconnect the power supply to the machine and check performance. If fault persists or is frequently repeated, disconnect the power supply and contact your Authorised Technical Service.	

<b>20</b>	<b>FAULTY FAN</b>
Fan failure due to disconnection of the motor protections or, in ED900 and ED1250 models, due to failure of the extraction fan inverter	
<b>Probable cause:</b> Tripping of the motor's thermal protection. Fault in the wiring of the motor's power supply circuit. In ED900 and ED1250 models, failure of the fan inverter.	
<b>Procedure:</b> <b>Operations reserved for Customer's Technical Assistance Service.</b> Switch off the power supply to the machine. Check the condition of the automatic protective circuit breaker. Check for possible mechanical seizing in the extraction motor. Reconnect the dryer after a period of 10 minutes. If fault persists or is frequently repeated, disconnect the power supply and contact your Authorised Technical Service. In ED900 and ED1250 models, make a note of the inverter alarm number indicated in brackets and inform the Technical Assistance Service.	

<b>21</b>	<b>MACHINE MODEL ERROR</b>
Conflict between the model of dryer and the identification jumpers located on the microprocessor board.	
<b>Probable cause:</b> No jumpers on X23 and X24 connectors. Error in connecting X23 and X24 connectors. Fault in the dryer control system.	
<b>Procedure:</b> Switch off the power supply to the machine. Contact Authorised Technical Services. In dryers with gas heating, close the manual gas inlet valve.	

### 10.3. Freeing a person trapped inside the machine

**CAUTION!**

**PROCEDURE IN THE EVENT OF ENTRAPMENT OF A PERSON OR AN ANIMAL INSIDE THE MACHINE.**

- **Press the  key.** This action interrupts the drying cycle that is running. The dryer control remains in operation and extraction continues to operate to cool the machine.
- **Open the door.** Pull on the door handle to open. The dryer will stop running.

## 11. USER MAINTENANCE INSTRUCTIONS



### DANGER!

IT IS COMPULSORY TO CARRY OUT ALL THE INSPECTIONS AND TESTS REQUIRED BY THE EXISTING LEGISLATION IN FORCE IN THE COUNTRY OR AREA IN WHICH THE MACHINE IS TO BE USED, AT THE FREQUENCY DETERMINED BY THE AFOREMENTIONED LEGISLATION, ESPECIALLY THOSE CONCERNING GAS APPLIANCES.

BEFORE MANIPULATING ANY OF THE MACHINE'S MECHANISMS, ENSURE THAT:

- THE AUTOMATIC EXTERNAL SWITCH IS DISCONNECTED AND MECHANICALLY LOCKED.
- THE MACHINE'S BREAKER SWITCH IS DISCONNECTED AND MECHANICALLY LOCKED (in machines fitted with this device) (IF NECESSARY, REMOVE THE SWITCH'S REAR SUPPORT COVER. THE SWITCH MUST BE IN THE "0" POSITION).
- THE MANUAL GAS SUPPLY VALVE IS CLOSED AND LOCKED (machines with gas heating).
- THERE ARE NO PARTS IN MOVEMENT DUE TO INERTIA.
- THE MACHINE IS COLD THROUGHOUT.

ONCE ANY MAINTENANCE OPERATION HAS ENDED:

- FIT ALL THE COVERS ON THE MACHINE.
- CONNECT THE ENERGY SOURCES.
- START A DRYING PROGRAM AND CHECK THAT THE MACHINE IS FUNCTIONING PROPERLY.



### CAUTION!

FOLLOW THE INSTRUCTIONS PROVIDED. DOING SO WILL ENSURE AN EXCELLENT SERVICE, REDUCE THE LIKELIHOOD OF FAULTS AND EXTEND THE LIFE OF THE DRYER.

USERS MUST REFRAIN FROM CARRYING OUT ANY MANIPULATION RESERVED FOR THE AUTHORISED TECHNICAL SERVICE OR CLIENT TECHNICAL SERVICE.

THERE IS A MANUAL FOR MAINTENANCE OPERATIONS TO BE CARRIED OUT BY THE AUTHORISED TECHNICAL SERVICE.



### CAUTION!

#### SPECIFIC WARNINGS FOR GAS-HEATED DRYERS

##### GAS CIRCUIT:

Should the dryer be dismantled, on reassembling pay special attention to the order in which the components are assembled. Ensure that the seals are fitted correctly and avoid over-tightening self-tapping threads, since they can crack female components.



### DANGER!

LINT AND SOOT ARE HIGHLY FLAMMABLE SUBSTANCES.

IT IS ESSENTIAL TO AVOID THESE BUILDING UP INSIDE THE MACHINE AND THE EXHAUST DUCTING RUNNING FROM THE MACHINE TO THE OUTSIDE.

IT IS THEREFORE VERY IMPORTANT TO CLEAN THE AREAS EXPOSED TO LINT AND SOOT ON A REGULAR BASIS (E.G.: COVERS, EXHAUST DUCTS, FILTER, FAN, ETC.). BY APPLYING THE MAINTENANCE AND CLEANING PLAN SET OUT IN THIS CHAPTER ON A TIMELY BASIS. IN THE CASE OF MACHINERY OPERATING IN ESPECIALLY DIRTY CONDITIONS, IT IS ESSENTIAL TO CLEAN MORE FREQUENTLY.

KEEP THE AREA AROUND THE MACHINE FREE OF LINT AND FLAMMABLE SUBSTANCES.

## 11.1. Clean and check the lint filter



### CAUTION!

THE LINT FILTER SHOULD BE CHECKED PERIODICALLY AND CLEANED WHENEVER DEEMED NECESSARY.

CLEANING THE LINT FILTER IS VERY IMPORTANT.

THE ACCUMULATION OF LINT IN THE FILTER REDUCES THE PERFORMANCE OF THE DRYER AND INCREASES THE RISK OF SPONTANEOUS COMBUSTION.

CHECK THAT THE LINT FILTER IS NOT TORN OR BROKEN.

A BROKEN LINT FILTER ALLOWS LINT TO PASS INTO THE EXHAUST DUCT. THIS BUILD UP IS AN IMPEDIMENT FOR EXTRACTION AND POSES A SIGNIFICANT RISK OF FIRE.

NEVER OPERATE THE DRYER WITHOUT THE LINT FILTER OR WITH THE LINT FILTER BROKEN OR DAMAGED.

FOR GREATER SAFETY, ACTIVATE THE LINT FILTER'S PERIODIC CLEANING INDICATION IN THE GENERAL PARAMETERS CONFIGURATION MENU.

### 11.1.1. Lint filter's periodic cleaning indication

The lint filter's periodic cleaning indication is activated and programmed in the general parameters configuration menu.

Whenever the user-defined time elapses, a screen is displayed (Fig. 11.1) informing the user that the filter needs to be cleaned. This screen will be displayed on running a new program.

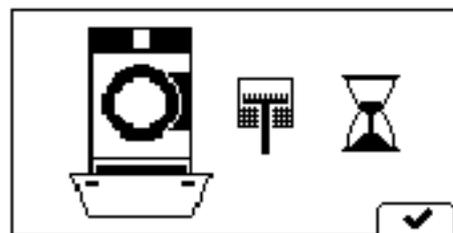


Fig. 11.1

In models ED900 and ED1250, a screen is also displayed (Fig. 11.2) warning of an inadequate suction in the machine caused by the lint accumulated in the filter.

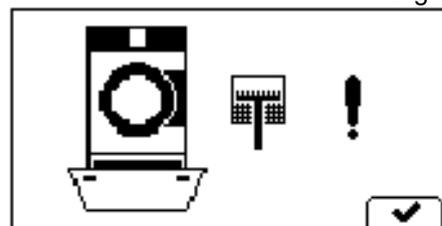


Fig. 11.2

### 11.1.2. Cleaning the filter

- Disconnect and mechanically lock the machine's power switch, or failing that, the external automatic switch breaker.
- Remove the front cover to access the air filter.
- Remove the air filter by pressing the top side downwards (Figure 11.3).
- Clean the lint and fabric residues from the filter. Compressed air, a soft brush or a cloth or sponge dampened with water can be used to remove the lint accumulated in the filter (pay special attention to removing traces of lint from the edges).
- Remove any lint that may have accumulated in the area around the filter.
- Never use abrasive products, solvents or tools that could cut or damage the filter.
- Refit the filter.
- Refit the front cover for accessing the filter.
- Connect the power supply for the machine.



Fig. 11.3

### 11.2. Cleaning the machine

- The outside of the dryer should be cleaned regularly. Use a damp cloth or sponge.
- To remove remains of grease, use neutral soap, rinse and dry properly.
- Never use abrasive products or tools that could scratch or damage the surface of the machine.

### 11.3. Checking safety mechanisms

#### 11.3.1. Checking the door opening safety device

**CAUTION!**

**THIS SHOULD BE CARRIED OUT BY QUALIFIED PERSONNEL ONLY.**

**CHECK THE DOOR SAFETY DEVICE DAILY.**

**TAKE GREAT CARE WHEN CHECKING THE DOOR LOCK.**

**IF THERE IS A FAULT IN THE DOOR LOCK, KEEP HANDS WELL AWAY FROM THE DRYER LOADING ORIFICE.**

**Checking procedure:**

- With the machine power supply on, open the door of the dryer. The display reports that the door is open and no program can be started.
- Close the door.
- Select and run a drying program containing heating.
- When the display shows that the heating system is on, open the door of the dryer.
- The open door image appears on the display.
- Close the door. The display shows a message allowing the program to be resumed or cancelled.
- Cancel the program and open the door.

**DANGER!**

**IF A FUNCTION IS DETECTED THAT IS DIFFERENT FROM THAT DESCRIBED IN THIS SECTION, DISCONNECT ALL THE MACHINE'S SUPPLY LINES AND CONTACT THE AUTHORISED TECHNICAL SERVICE.**

**NEVER USE THE MACHINE WITH A FAULTY DOOR SAFETY DEVICE.**

### 11.3.2. Checking the emergency stop

**CAUTION!**

**THIS SHOULD BE CARRIED OUT BY QUALIFIED PERSONNEL ONLY.**

**CHECK THE EMERGENCY STOP ON A WEEKLY BASIS.**

**Applying the emergency stop device** (see section 4.6.4).

**Checking procedure:**

- Switch on the machine and start a drying program.
- Press the emergency stop button.
- The drum will stop rotating and the heating system will turn off.
- The beep will sound and a warning message will be displayed stating that the Emergency Stop is activated.
- Unlock the Emergency Stop button.
- Press the  key. The Emergency Stop icon disappears, the beep stops, and the **MAIN MENU** icons are displayed on the screen.

**DANGER!**

**IF A FUNCTION IS DETECTED THAT IS DIFFERENT FROM THAT DESCRIBED IN THIS SECTION, DISCONNECT ALL THE MACHINE'S SUPPLY LINES AND CONTACT THE AUTHORISED TECHNICAL SERVICE URGENTLY.**

**NEVER USE THE MACHINE WITHOUT A PROPERLY WORKING EMERGENCY STOP DEVICE.**

## 11.4. Preventative maintenance programme

7DAY 50 h	QUAR 600 h	ANNUAL 2400h	PROCEDURES RESERVED EXCLUSIVELY FOR THE CUSTOMER'S TECHNICAL SERVICES OR AUTHORISED TECHNICAL SERVICES
x			<ul style="list-style-type: none"> <li>• Check the heating system ignition and combustion (gas heating)</li> <li>• Cleaning the lint filter</li> <li>• Clean the protective vents of the extraction motor fan</li>   <li>• Clean the extraction turbine blades and the exhaust ducts</li> <li>• Clean the inverter fan</li> <li>• Clean the inside of the machine</li> <li>• Cleaning the inverter fan and heatsink (only if considered necessary)</li> <li>• Check the static pressure at the fan output.</li>   <li><b>REQUEST AN ANNUAL SERVICE FROM AUTHORISED TECHNICAL SERVICES</b></li> <li>• Check all the functions of the dryer (TEST program)</li> <li>• Check the heating system</li> <li>• Check the power consumption of the drum motor and the extraction motor</li> <li>• Check the power consumption of the electric heaters (electric heating)</li> <li>• Check and clean the burner (gas heating)</li> <li>• Check the rotation detector</li> <li>• Check external protections and electrical earthing</li> <li>• Check the gas tightness of the gas circuit (gas version)</li> <li>• Check the condition of the nuts and bolts</li> <li>• Clean the lint from the machine and from the exhaust area.</li> <li>• Analysis of the combustion products <b>THE RESULT MUST COMPLY WITH THE REQUIREMENTS IN FORCE IN THE COUNTRY WHERE THE DRYER IS INSTALLED.</b></li> </ul>
x			
x			
	x		
	x		
	x		
	x		
	x		
	x		
		x	
		x	
		x	
		x	

### 11.5. Cleaning the inside of the inverter

**THIS IS AN OPERATION RESERVED EXCLUSIVELY FOR THE CUSTOMER'S TECHNICAL ASSISTANCE SERVICE (CTS) OR THE AUTHORISED TECHNICAL SERVICE (ATS).**

In accordance with safety directives, all electrical devices and mechanisms subjected to high temperatures, are to be protected by safety guards (covers) to prevent accidental contact with these elements.

**⚠ DANGER!**

**ANY INTERVENTION INVOLVING THE REMOVAL OF ANY OF THE DRYER'S COVERS IS AN OPERATION RESERVED EXCLUSIVELY FOR THE CUSTOMER TECHNICAL SERVICE (CTS) OR THE AUTHORISED TECHNICAL SERVICE (ATS). THIS MUST NEVER BE DONE BY THE MACHINE OPERATOR. (This limitation DOES NOT AFFECT the opening of the front protective cover on the lint filter).**

**BEFORE PROCEEDING WITH THE REMOVAL OF ANY SAFETY GUARD, THE PRECAUTIONS INDICATED AT THE BEGINNING OF THIS MANUAL AND IN THE PRESENT CHAPTER MUST BE OBSERVED. ESPECIALLY:**

- DISCONNECT THE DRYER'S POWER SUPPLY.
- CLOSE THE GAS STOPCOCK (machines with gas heating).
- CHECK THAT NONE OF THE DRYER PARTS IS AT A HIGH TEMPERATURE.

**ONCE THE OPERATION THAT HAS LED TO THE REMOVAL OF THE PROTECTIVE COVERS HAS FINISHED, DO NOT RESTART THE MACHINE WITHOUT REFITTING AND SECURING ALL THE COVERS PROPERLY.**

**NEVER START OR USE THE MACHINE IF ANY OF THE FOLLOWING ARE MISSING, INCORRECTLY POSITIONED OR MALFUNCTIONING:**

- COVERS
- SAFETY DEVICES
- CONTROL ELEMENTS.

Remove the dryer's rear cover.

Disconnect the inverter wiring connectors.

Disconnect the earth connection wire.

Remove the screws **A** and **B** securing the inverter (Figures 11.4 and 11.5).

Remove the inverter.

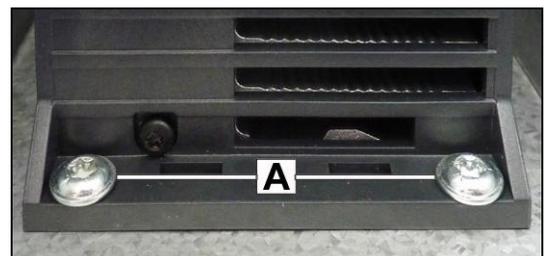


Fig. 11.4



Fig. 11.5

Remove the screws **A** and **B** from the inverter (Figures 11.6 and 11.7).

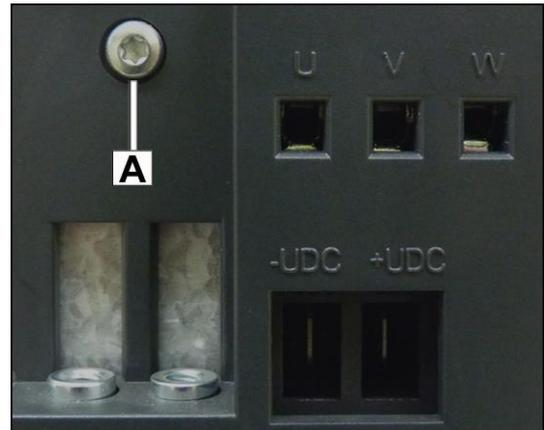


Fig. 11.6



Fig. 11.7

Separate the inverter's plastic protector from the metal base (Fig. 11.8).

Remove dirt from the fan, the heat sink and the ventilation grille in the plastic protector with a brush or a dry cloth.

Fit the plastic protector onto the inverter.

Connect the wiring connectors.

Attach the earth connection wire.

Fit the inverter in its location.

Clean the extraction motor's fan protective grille.

Clean the vents in the rear cover. Fit and correctly secure the rear cover using the screws.

Once the maintenance operation has been completed, run a drying program and check that the dryer is working properly.

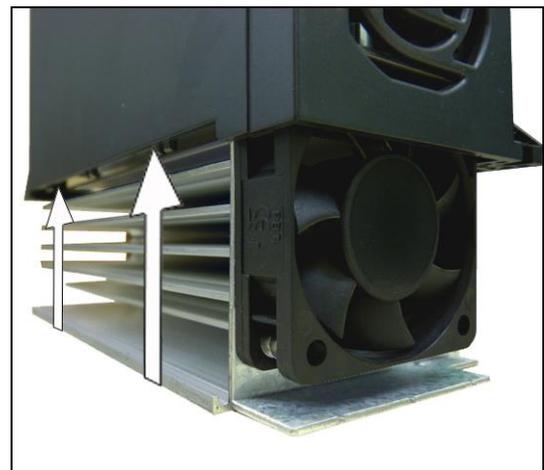


Fig. 11.8

## 11.6. Troubleshooting operation problems

PROBLEM	PROBABLE CAUSE	ACTION
<b>DRIED LINEN MOISTURE LEVEL TOO HIGH</b>	Excessive residual moisture in the fabrics being dried	Adjust the spin process.
	Insufficient drying time	Alter the program to increase the drying time.
	Temperature too low	Alter the program to increase the temperature.
<b>INCORRECT DRUM SPEED</b>	Inverter breakdown	Call the Authorised Technical Services.
	Fault in the drum rotation detector	Call the Authorised Technical Services.
<b>FLAME TOO ORANGE (GAS VERSION)</b>	Faulty air intake filter	Clean the filter.
	Poor air/gas mixture	Check, and if necessary correct, the position of the venturi. If the problem persists, contact the Authorised Technical Services.
<b>THE BURNER CAN NOT BE IGNITED (GAS VERSION)</b>	Manual gas flow valve closed	Open the manual gas flow valve.
	Insufficient supply of gas	Ask a Registered Installation Contractors to check the gas supply pressure and flow rate. If the problem persists, contact the Authorised Technical Services.
	Gas ignition system defective or ignition electrodes misplaced	Call the Authorised Technical Services.
<b>POOR FLAME SPREAD (GAS VERSION) DRIED LINEN MOISTURE LEVEL TOO HIGH</b>	Insufficient supply of gas	Ask a Registered Installation Contractors to check the gas supply pressure and flow rate. If the problem persists, contact the Authorised Technical Services.
	Excessive residual moisture in the fabrics being dried	Adjust the spin process.

## 11.7. General checks



**CAUTION!**

**THIS OPERATION IS RESERVED FOR THE AUTHORISED TECHNICAL SERVICES.**

- As a preventive maintenance measure, it is very important to ask the Authorised Technical Service for a periodic overhaul of the machine.
- Recommended interval: every year or every **3000** cycles.
- If any element is found to be worn or damaged during the inspection, it should be renewed.

**11.8. List of most common spare parts**
**SPARE PARTS COMMON TO ALL MODELS**

NAME	ED260	ED340	ED460	ED660	ED900	ED1250
Door closed microswitch	X	X	X	X	X	X
Door and drum rotation detector Drum rotation detector	X	X	X	X	X	X
Input temperature safety thermostat	X	X	X	X	X	X
Output temperature safety thermostat	X	X	X	X	X	X
NTC element Output temperature probe	X	X	X	X	X	X
PT1000 probe Input temperature probe	X	X	X	X	X	X
Depressor (40Pa tare)	X	X				
Depressor (80Pa tare)			X	X		
Mechanical pressure switch					X	X
Emergency stop button	X	X	X	X	X	X
Emergency stop contacts	X	X	X	X	X	X
Moisture control	X	X	X	X	X	X
Keyboard	X	X	X	X	X	X
Fan motor/inverter control relay	X	X	X	X	X	X

**SPECIFIC SPARE PARTS FOR MODELS WITH GAS HEATING**

NAME	ED260	ED340	ED460	ED660	ED900	ED1250
Gas valve	X	X	X	X	X	X
Burner control	X	X	X	X	X	X
¾" Rubber seal					X	X
Ignition electrode	X	X	X	X	X	X
Ionisation electrode	X	X	X	X	X	X

**SPECIFIC SPARE PARTS FOR MODELS WITH ELECTRIC HEATING**

NAME	ED260	ED340	ED460	ED660	ED900	ED1250
Heating contactor	X	X	X	X	X	X

## 12. REMOVAL FROM SERVICE AND DISMANTLING



### CAUTION!

- **Taking the dryer out of service must be performed by a specialised service or contractor.**
- **Under no circumstances must the dryer be left unchecked.**
- **When it comes to handling and transporting the machine, the same precautions and regulations must be taken into account as for the installation process.**

For further information concerning the withdrawal of the dryer from service, consult the corresponding chapter in the Installation Instruction Manual.