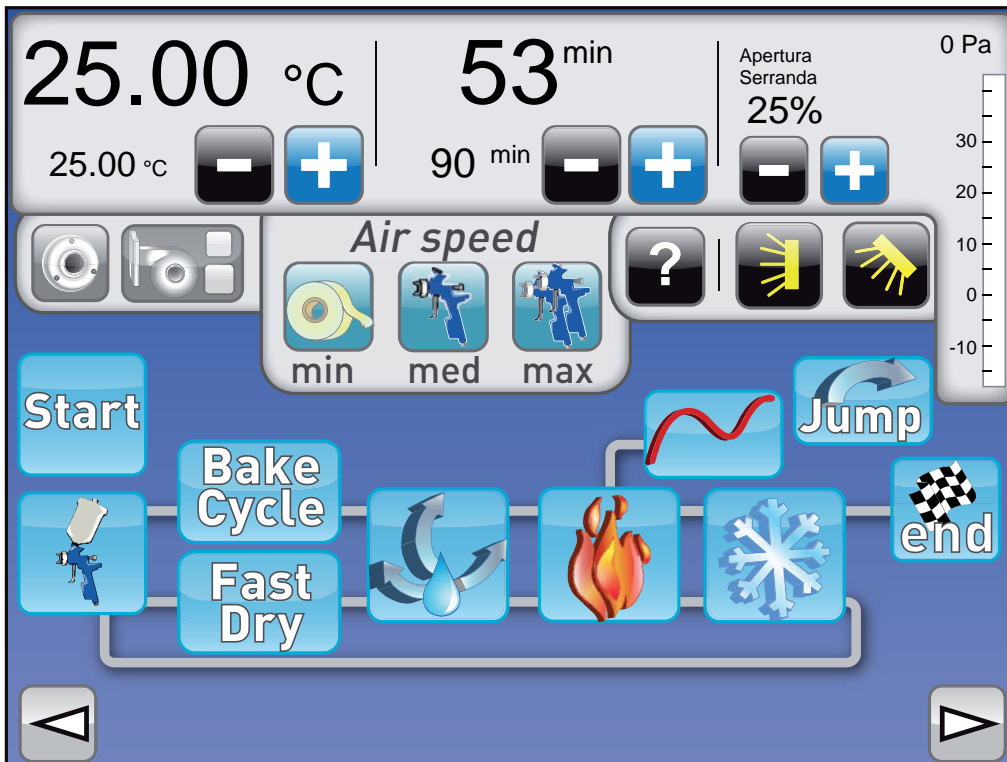


Control panel touch screen MOD. 80







MAIN SCREEN



SECONDARY SCREEN



TOUCH SCREEN AREAS DESCRIPTION

A1	It displays the instantaneous temperature in the booth.		
A2	It displays the set temperature for the working phase currently under way (painting, flash-off and bake phases) by pressing + 0 - , it is possible to change the temperature during each phase.		
A3	It displays the remaining time during flash-off, bake and cooling phases.		
A4	It displays the set duration (time) for the working phase currently under way (painting, flash-off and bake phases) by pressing + 0 - , it is possible to change the time during each phase.		
A5	It displays the damper door opening in case it is present, otherwise the pushbuttons will remain idle.		
A6	It displays the pressure within the booth (in case the pressure switch is present).		
A7	Wind activity indicator (red is active ) and burner activity indicator:		
	Burner on line without flame 	First stage in use, one flame is burning (only with double stage burners) 	Both stages in use. Two flames are burning 
A8	Make-up " Quick three position selecting device " (WITH INVERTER ONLY and during spray painting phase). In the Min. position the spray painting gun does not work and the exhaust speed is automatically adjusted. (To set the three speeds, see page 24, screen 6 "Hz Speed").		
A9	Help mode. By pressing this button the control functions of the panel are disconnected, but by keeping each button pressed for some seconds, a short explanation of its use will appear.		
A10	"On"/"Off" button for high and low lights (if any).		
A11	Start spray painting phase.		
A12	It shows the spray painting phase. By pressing it, one can set: temperature, make-up speed (MAX, MED and MIN position of the A8 three-speed quick selecting device) and, if configured, the economy mode make-up speed (to configure the economy mode see page 44 picture 1 "start economy delay time". For the available settings at this stage, see page 50, picture 17).		
A13	Start BAKE CYCLE and, at the same time, the flash-off phase will start (A15).		
A14	Start FAST DRY and, at the same time, the flash-off phase will start (A15)		
A15	FLASH-OFF phase (both for Bake Cycle and Fast Dry) with standard settings (to fix the standard settings see page 44, screens 1 and 2, "temperatures and time"). By pressing it, one can change time, temperature, make-up speed (WITH INVERTER ONLY) and activate/disconnect WIND devices, if there are any (see pages 31, pictures 1, 2). By pressing the JUMP button, one can skip to the next phase.		
A16	BAKE phase (both for Bake Cycle and Fast Dry) with standard settings (to fix the standard settings see page 44, screens 1 and 2, "temperatures and time"). By pressing it, one can change time, temperature, make-up speed (WITH INVERTER ONLY) and activate/disconnect WIND devices, if there are any (see pages 31, pictures 1, 2). By pressing the JUMP button, one can skip to the next phase.		
A17	COOLING (both for Bake Cycle and Fast Dry) phase with standard settings (to fix the standard settings see page 44, screens 1 and 2, "temperatures and time"). By pressing it, one can change time, temperature, make-up speed (WITH INVERTER ONLY) and activate/disconnect WIND devices, if there are any (see pages 31, pictures 1, 2). By pressing the JUMP button, one can skip to the final phase		
A18	At the end of each complete cycle, one have to press this key to start a new one. To cancel the spray painting cycle, one have to press it together with the JUMP button (A20).		
A19	Press this button to activate the "bake profiles", in case they have been previously set. (In order to set the bake profiles, see page 47, Screen 10 "bake profiles").		
A20	It skips to the next working phase, before due time.		
A21	Back to the previous screen.		
A22	It skips to the configuration screens of the different parameters. WARNING: a password is required (see page 44 "description of configuration screens – access through password").		
A23	It counts the total number of working hours of the booth.		
A24	It displays the present make-up speed into the booth.		
A25	It displays the previously set mane-up speed into the booth. By pressing buttons +/- one can change this speed.		
A26	It displays the present air exhaust speed into the booth.		
A27	It displays the previously set air exhaust speed into the booth. By pressing +/- buttons one can change this speed. When the automatic pressure adjustment function is on, the +/- buttons are disconnected.		

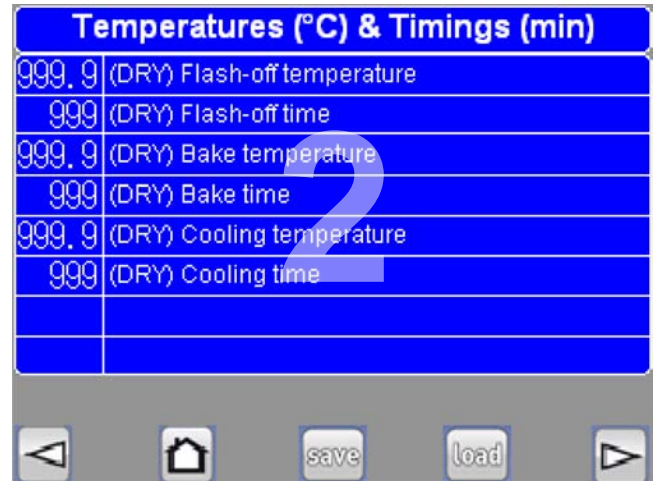
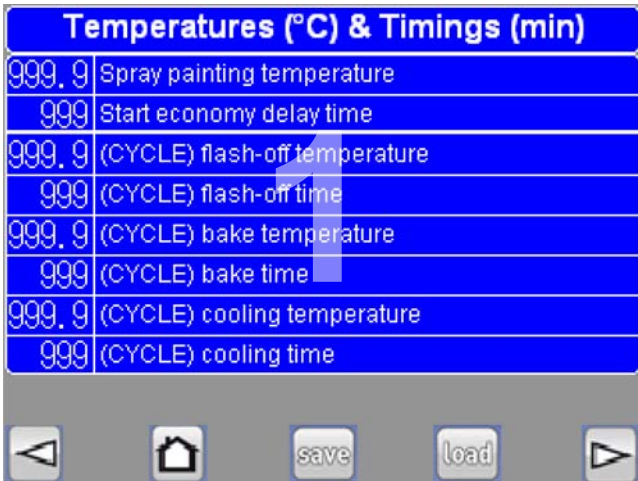
CONFIGURATION SCREENS DESCRIPTION

ACCESS BY PASSWORD

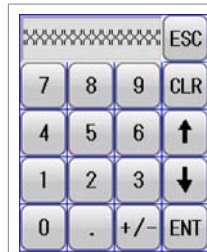
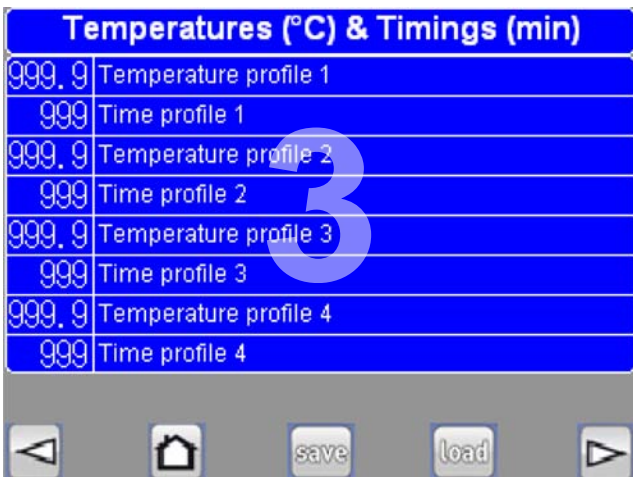


Press **A22** to access the configuration screens. Insert the password, which is "1" by default, and then press ENT. You are now in the first configuration screen.

SCREEN 1 AND 2 "TEMPERATURES AND TIMINGS"



SCREEN 1 AND 2 "TEMPERATURES AND TIMINGS" (FOR PROFILES)



Numeric keyboard for the change of data; It is displayed as soon as the value to be changed is pressed.

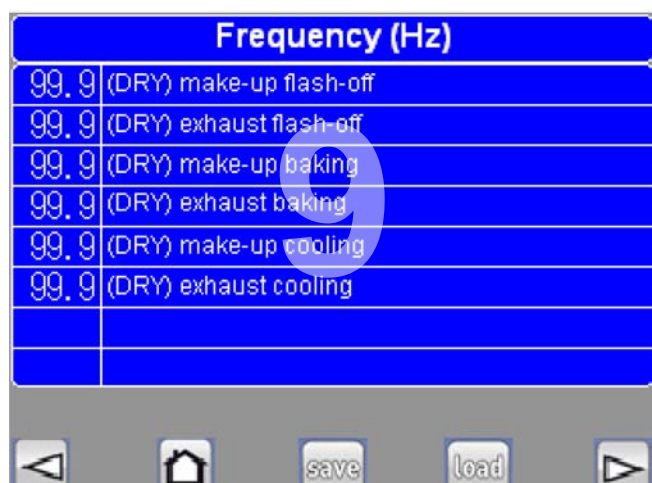
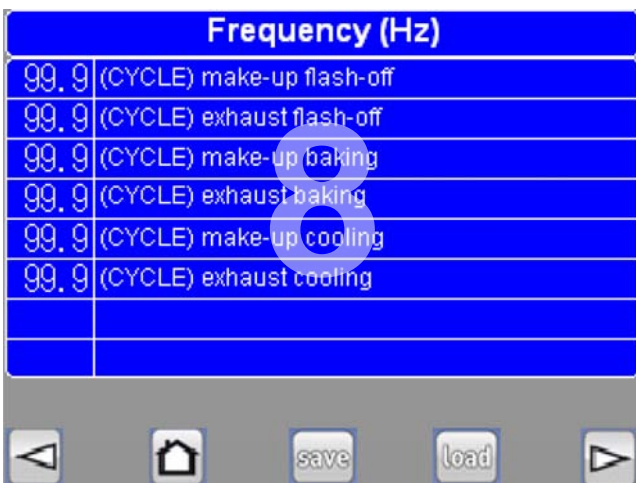
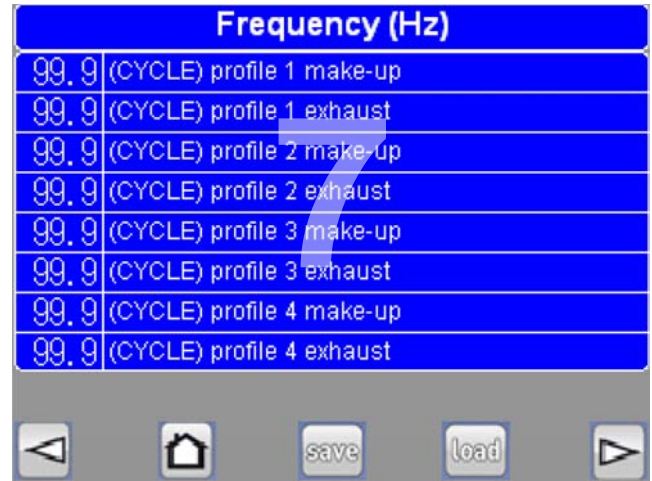
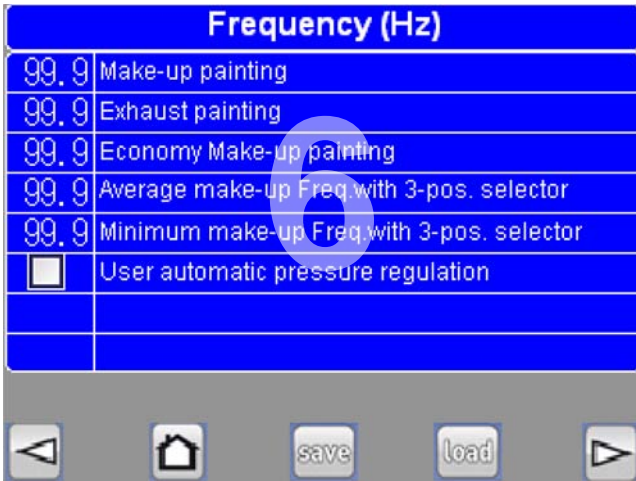
SPRAY PAINTING TEMPERATURE Screen 1	It sets the temperature during the spray painting phase.
DELAY TIME - START ECONOMY Screen 1	During the spray painting phase, one can set a time of inactivity (i.e. during which the spray painting gun does not work). After that time, the machinery enters the ECONOMY mode, thus reducing the speed at a previously set frequency (see screen 17, page 50). Thanks to this function, there is a considerable energy saving. When the gun starts to work again, all working units will go back to the frequency, which had been previously set for the spray painting phase.
CYCLE SETTINGS Screen 1	CYCLE SETTINGS It enables you to configure all parameters of time and temperature during the three phases (flash-off, bake and cooling) of the BAKE CYCLE.
DRY SETTINGS Screen 2	It enables you to configure all parameters of time and temperature during the three phases (flash-off, bake and cooling) of the FAST-DRY.
SCREEN 3	For the settings of this screen see page 47 "Bake profiles".

SCREENS 4 AND 5 “WIND SYSTEM” (if any)



WIND SYSTEM	<p>In this screen one can set at which phase and in which cycle one wants to activate the WIND SYSTEM.</p> <p>DRY = FAST DRY CYCLE = BAKE CYCLE</p> <p>By pressing the small square corresponding to each phase, one can activate or discon-nect WIND SYSTEM</p>
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SCREENS 6,7,8 E 9 "FREQUENCY Hz"



MAKE UP SPEED <i>Screen 6</i>	It sets the make-up speed during the spray painting phase. It corresponds to the MAX speed in the quick speed selecting device.
EXHAUST SPEED <i>Screen 6</i>	When inverters are present, this speed is automatically set in order to keep the pressure always constant within the booth. In case there are no inverters, this speed has to be adjusted in order to obtain the optimal working pressure in the booth, by acting also on the damper door opening (A5).
ECONOMY MAKE-UP SPEED <i>Screen 6</i>	This is the desired make-up speed during the economy mode.
AVERAGE MAKE-UP SPEED WITH 3 POSITION SELECTING DEVICE <i>Screen 6</i>	This is the desired speed when one sets the quick selecting device in the MED (AVERAGE) position. The spray painting gun works normally and the exhaust speed is automatically set.
MINIMUM MAKE-UP SPEED WITH 3 POSITION SELECTING DEVICE <i>Screen 6</i>	This is the desired speed when one sets the quick selecting device in the Min (mini-mum) position. The spray painting gun does not work. This speed is useful during the masking phase. The exhaust speed is automatically set.
AUTOMATIC ADJUSTMENT OF BOOTH PRESSURE <i>Screen 6</i>	By activating this setting, one can automatically adjust the exhaust speed according to the make-up speed. By disabling this setting, the exhaust speed shall be manually adjusted by acting on the damper door opening (A5) and on the make-up (A25) and exhaust (A27) frequencies.
CYCLE SETTINGS <i>Screens 7-8</i>	It enables one to configure all the make-up and exhaust parameters (only if this is not carried out automatically) during the three phases (flash-off, bake and cooling) of the BAKE CYCLE.
DRY SETTINGS <i>Screens 9</i>	It enables you to configure all the make-up and exhaust parameters (only if the exhaust does not work automatically) during the three stages (flash-off, bake and cooling) of the FAST DRY.

SCREEN 10 “BAKE PROFILES” (if configured)

Frequency (Hz)	
99.9	(CYCLE) profile 1 make-up
99.9	(CYCLE) profile 1 exhaust
99.9	(CYCLE) profile 2 make-up
99.9	(CYCLE) profile 2 exhaust
99.9	(CYCLE) profile 3 make-up
99.9	(CYCLE) profile 3 exhaust
99.9	(CYCLE) profile 4 make-up
99.9	(CYCLE) profile 4 exhaust

Navigation icons: back, home, save, load, forward.

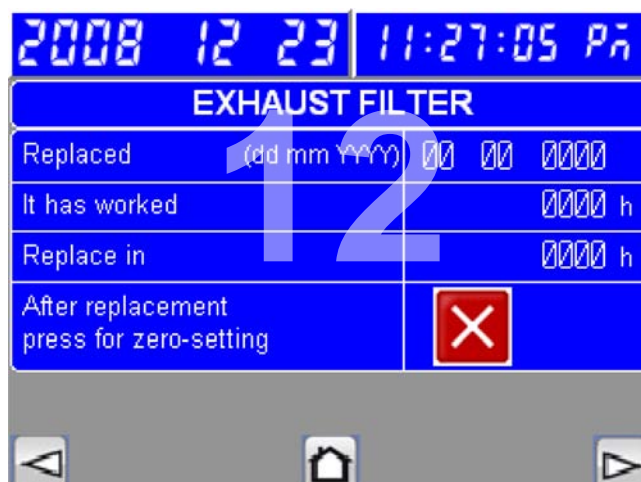
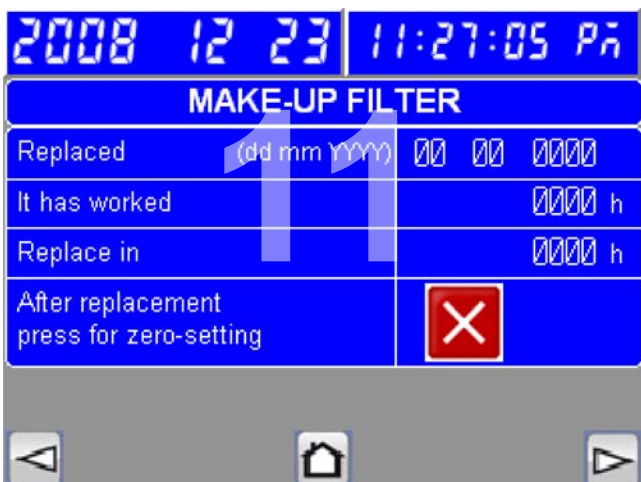
BAKE PROFILES SETTING Screen 10

The “bake profiles”, which can be activated with the BAKE CYCLE only, enable the user, before the actual bake is carried out, to change time, temperature and quantity of make-up and exhaust air according to specific needs.

You can configure up to 4 different profiles (including 4 options for temperature, 4 for time, 4 for make-up speed and 4 for exhaust speed) before getting to the standard bake with previously set time, temperature, make-up and exhaust.

Once the profiles have been set, one can activate them following the procedure described at page 52, picture 20.

SCREEN 11, 12, 13, 14 “FILTERS”



<p>MAKE UP FILTER Screen 11</p>	<p>The following details are specified for the make-up filter:</p> <ul style="list-style-type: none"> • replacement date, which will be updated after the replacement • working hours • remaining hours before the replacement. <p>WARNING! <i>a pre-alarm warns the user 10 hours before the actual end of the expiry of the filter life cycle.</i></p> <p>After having replaced the filter, press the red X and the confirmation box will appears. Press YES to confirm and then ESC. The counter is reset and the system shows the new installation date.</p>
<p>EXHAUST FILTER Screen 12</p>	<p>The following details are specified for the exhaust filter:</p> <ul style="list-style-type: none"> • replacement date, which will be updated after the replacement • working hours • remaining hours before the replacement. <p>WARNING! <i>a pre-alarm warns the user 10 hours before the actual end of the expiry of the filter life cycle.</i></p> <p>After having replaced the filter, press the red X and the confirmation box will appears. Press YES to confirm and then ESC. The counter is reset and the system shows the new installation date.</p>
<p>CEILING FILTER Screen 13</p>	<p>The following details are specified for the ceiling filter:</p> <ul style="list-style-type: none"> • replacement date, which will be updated after the replacement • working hours • remaining hours before the replacement. <p>WARNING! <i>a pre-alarm warns the user 10 hours before the actual end of the expiry of the filter life cycle.</i></p> <p>After having replaced the filter, press the red X and the confirmation box will appears. Press YES to confirm and then ESC. The counter is reset and the system shows the new installation date.</p>
<p>FLOOR FILTER Screen 14</p>	<p>The following details are specified for the floor filter:</p> <ul style="list-style-type: none"> • replacement date, which will be updated after the replacement • working hours • remaining hours before the replacement. <p>WARNING! <i>a pre-alarm warns the user 10 hours before the actual end of the expiry of the filter life cycle.</i></p> <p>After having replaced the filter, press the red X and the confirmation box will appears. Press YES to confirm and then ESC. The counter is reset and the system shows the new installation date.</p>

SCREEN 15, 16 “SAVE / LOAD”



<p>SAVE SETTINGS <i>Screen 15</i></p>	<p>By offering several options, the Touch Screen control panel enables the user to save all the settings of the previous screens (up to 500) to facilitate and speed up the different working procedures carried out in the booth during all spray painting, bake cycle and fast dry phases. These settings can be brought up in case the user would need to carry out again a previously performed working cycle.</p> <p>Regardless of the screen you are in, the SAVE control device saves all the screens (from 1 to 5).</p> <p>In order to save, the user has to:</p> <ul style="list-style-type: none"> • press the SAVE button • insert the save number (from 000 to 499) • confirm with YES • exit the confirmation box by pressing ESC. <p>It is always useful to note down which kind of working procedure each number of programme corresponds to.</p>
<p>LOAD SETTINGS <i>Screen 16</i></p>	<p>In case the user has to carry out a previously performed working procedure, the Touch Screen control panel enables the user to load a previously saved programme.</p> <p>In order to load the programme, one has to:</p> <ul style="list-style-type: none"> • press the LOAD button • insert the corresponding programme number to load (from 000 to 499) • confirm with YES • exit the confirmation window by pressing ESC.

SCREEN 17 “SPRAY PAINTING SETUP”

(WARNING, once these parameters have been changed, they will become standard parameters)

SPRAY PAINTING	
999.9	Temperature
99.9	Make-up freq.(or Max)
99.9	Exhaust frequency
99.9	Economy make-up freq.
99.9	Average make-up freq.
99.9	Minimum make-up freq.

Press the **SPRAY PAINTING** button in order to display the options window

Proceed as follows in order to change the values shown in this screen:

- Press on the value to be changed (the value will be then shown on the display above the numeric keypad)
- Enter the desired value
- Press ENTER

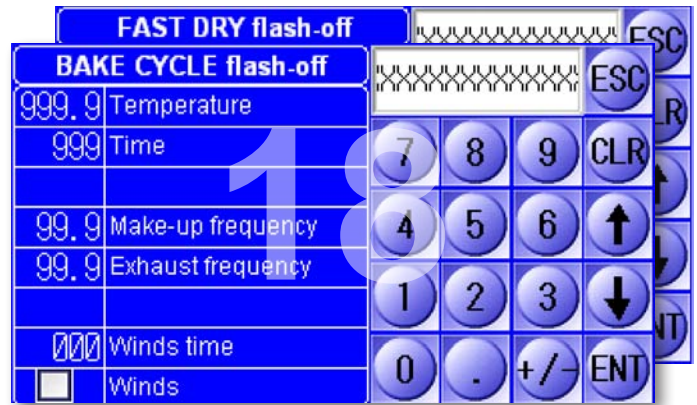
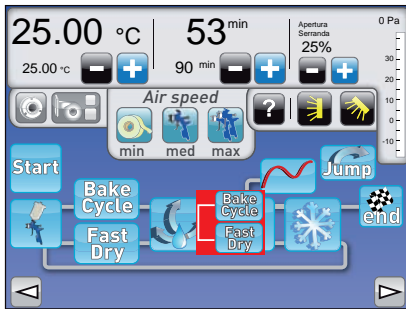
Follow the procedure described above in order to change the next value. Otherwise, press ESC.

At this stage the following values can be changed:

- the temperature in the booth
- the make-up speed (the exhaust speed is automatically set only if there are inverters)
- the economy mode make-up speed – only with inverters (in order to set the economy mode entry time *see page 30 screen 1 “Economy make-up speed”*).
- the make-up speed with the quick control device in the MED (average) position (only with inverters)
- the make-up speed with the quick control device in the MAX (maximum) position, which will turn out to be the optimal speed (only with inverters).

FLASH-OFF FOR BAKE CYCLE AND FAST DRY SETUP

(WARNING, once these parameters have been changed, they will become standard parameters)



Press the button FLASH-OFF of the BAKE CYCLE in order to display the options:

Proceed as follows in order to change the values shown in this screen:

- Press on the value to be changed (the value will be then shown on the display above the numeric keypad)
- Enter the desired value
- Press ENTER
- press the corresponding box in order to activate or disconnect the WIND devices (in case they are present).

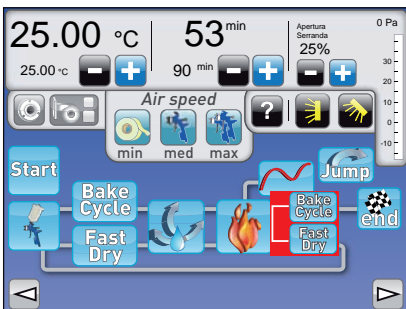
Follow the procedure described above in order to change the next value. Otherwise, press ESC.

At this stage the following values can be changed:

- the temperature in the booth
- the time of this phase
- the make-up speed (the exhaust speed is automatically set only if there are inverters)
- activate or disconnect the WIND devices

BAKE FOR BAKE CYCLE AND FAST DRY SETUP

(WARNING, once these parameters have been changed, they will become standard parameters)



Press the BAKE button of the BAKE CYCLE in order to open this window

Proceed as follows in order to change the values shown in this screen:

- Press on the value to be changed (the value will be then shown on the display above the numeric keypad)
- Enter the desired value
- Press ENTER
- press the corresponding box in order to activate or disconnect the WIND devices (in case they are present).

Follow the procedure described above in order to change the next value. Otherwise, press ESC.

At this stage the following values can be changed:

- the temperature in the booth
- the duration of this phase
- the make-up speed (the exhaust speed is automatically set only if there are inverters)
- activate or disconnect the WIND devices both during the bake and in each of the four profiles
- change time, temperature, make-up and exhaust of the profiles (if activated and previously set), without the need to open the corresponding configuration window.

BAKE CYCLE BAKE PROFILES

(WARNING, once these parameters have been changed, they will become standard parameters)

Temperatures (°C) Timings (min)		XXXXXXXXXXXX			ESC
999.9	Temperature profile 1	7	8	9	CLR
999	Time profile 1				
999.9	Temperature profile 2	4	5	6	↑
999	Time profile 2				
999.9	Temperature profile 3	1	2	3	↓
999	Time profile 3				
999.9	Temperature profile 4	0	.	+/-	ENT
999	Time profile 4				

(CYCLE) Profile Frequency (Hz)		XXXXXXXXXXXX			ESC
99.9	Profile 1 make-up	7	8	9	CLR
99.9	Profile 1 exhaust				
99.9	Profile 2 make-up	4	5	6	↑
99.9	Profile 2 exhaust				
99.9	Profile 3 make-up	1	2	3	↓
99.9	Profile 3 exhaust				
99.9	Profile 4 make-up	0	.	+/-	ENT
99.9	Profile 4 exhaust				

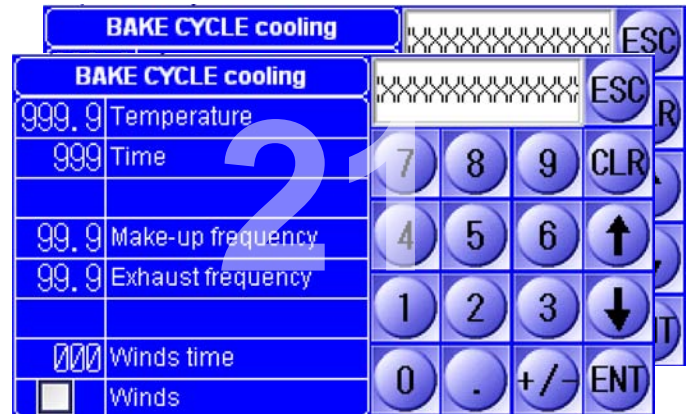
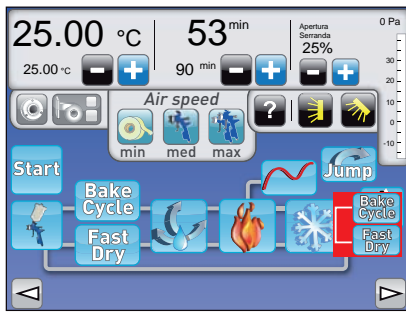
Bake CYCLE		XXXXXXXXXXXX			ESC
999.9	Temperature	7	8	9	CLR
999	Time				
99.9	Make-up frequency	4	5	6	↑
99.9	Exhaust frequency	1	2	3	↓
		0	.	+/-	ENT

WINDS		XXXXXXXXXXXX			ESC
000	Winds time	7	8	9	CLR
<input type="checkbox"/>	Bake	4	5	6	↑
<input type="checkbox"/>	Profile 1	1	2	3	↓
<input type="checkbox"/>	Profile 2	0	.	+/-	ENT
<input type="checkbox"/>	Profile 3				
<input type="checkbox"/>	Profile 4				

These four screens about profiles are readable and configurable also by pressing **A19** button. These give the possibility of creating bake profiles (only for Bake Cycle). with times, temperatures, frequency of make up and exhaust, activate the Wind System (if any) by 4 different ways. Once configured, the profiles may be saved by the procedure described on page 49 screen 15 "save". To have a bake phase with any profiles, set all values at 0.0. These profiles may be loaded by procedure described on page 49 screen 16 "load".

COOLING FOR BAKE CYCLE AND FAST DRY SETUP

(WARNING, once these parameters have been changed, they will become standard parameters)



Press the COOLING button of the BAKE CYCLE in order to open this window

Proceed as follows in order to change the values shown in this screen:

- Press on the value to be changed (the value will be then shown on the display above the numeric keypad)
 - Enter the desired value
 - Press ENTER
 - press the corresponding box in order to activate or disconnect the WIND devices (in case they are present).
- Follow the procedure described above in order to change the next value. Otherwise, press ESC.

At this stage the following values can be changed:

- the temperature in the booth (only if the burner is working during the cooling phase)
- the duration of this stage
- the make-up speed
- the exhaust speed (if it has not been automatically set)
- activate or disconnect the WIND devices

THE ALLARMS



ALARMS STOP OF THE WARNING SIREN

While carrying out its normal working procedures, the system may happen to undergo some alarm situations. These are acoustically signalled through a warning siren and are visually shown on the control panel (see the picture).

To stop the sound of the siren, it is enough to press the mute button.

The red box on the left shows the current alarm situations, the blue box the solved ones.

Use the vertical and horizontal pointers in order to read the whole description of the alarm or to read through the whole alarm list

Once the problem which originated the alarm is solved, the date and time of its solution will be shown on the display.

ALARMS: LIST AND RESOLUTION

DESCRIPTION OF THE ALARM	How to solve it
Breakdown of (or disconnected) temperature probe	Check the wiring of the probe
Replace PLC battery within 15 days	Order the battery and replace it
Replace Monitor battery within 15 days	Order the battery and replace it
Tripped Make-up thermal cut-out switch	Reset the thermal cut-out switch and check the power consumption
Tripped Exhaust thermal cut-out switch	Reset the thermal cut-out switch and check the absorbed electricity
Activated firewall damper door	Reset the damper door and check the causes.
Activated safety thermostat	Check the causes.
Blocked burner	Unblock the burner
WIND thermal cut-out switch tripped	Reset the thermal cut-out switch and check power consumption
"CO" Alarm	Check the "CO" value
Make-up inverter fault	Read the error code on the inverter
exhaust inverter fault	Read the error code on the inverter
no communication with inverter	check the wiring
High pressure pre-alarm	Check the causes
high pressure alarm	Check the causes
low pressure pre-alarm	Check the causes
low pression alarm	Check the causes
Make-up flow switch alarm	Check the ventilating fan belts
Make-up filter pre-alarm	Get the filters
Make-up filter alarm	Replace the filters and reset the corresponding hours-counter
Exhaust filter pre-alarm	Get the filters
Exhaust filter alarm	Replace the filters and reset the corresponding hours-counter
Ceiling filter pre-alarm	Get the filters
Ceiling filter alarm	Replace the filters and reset the corresponding hours-counter
Floor filter pre-alarm	Get the filters
Floor filter alarm	Replace the filters and reset the corresponding hours-counter
external air damper door alarm	Check damper door, EV, stroke-end switches and air