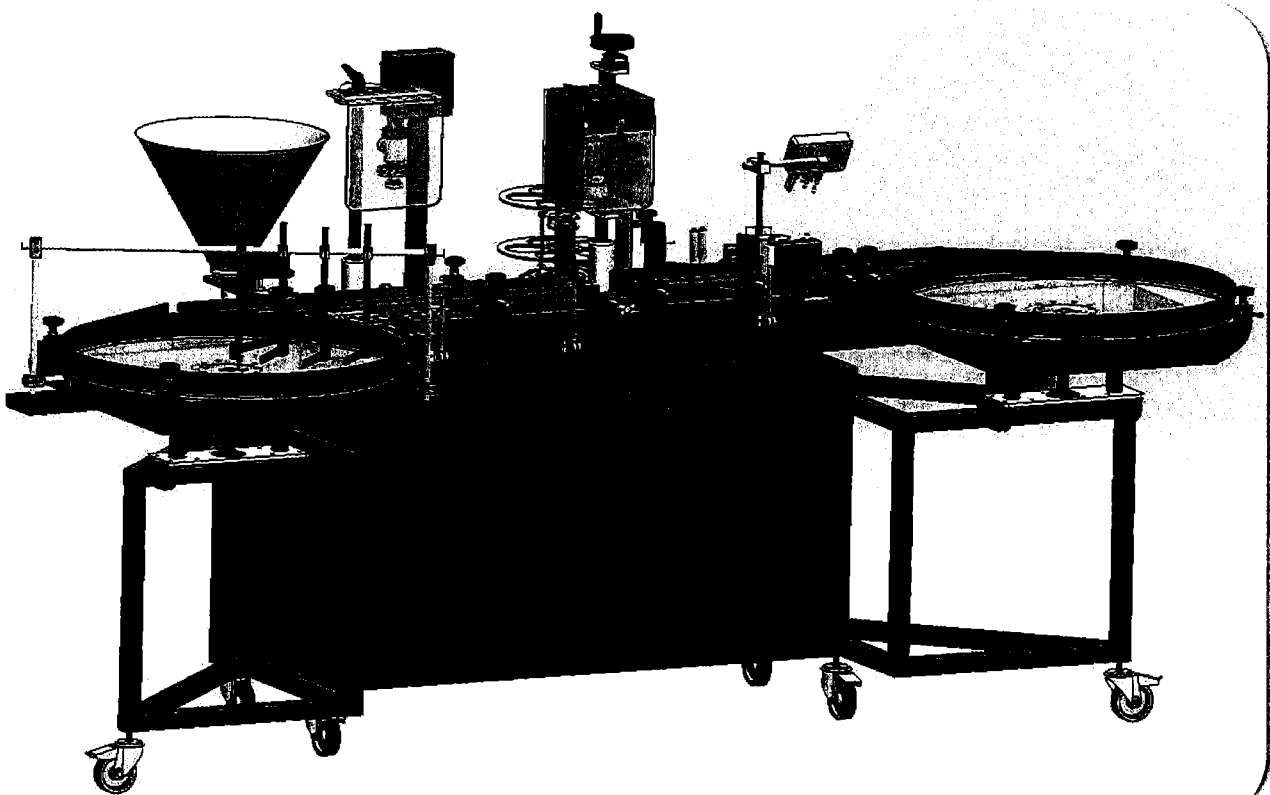
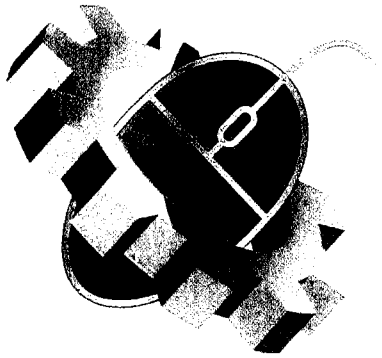


ace
SOLUTIONS

INSTRUCTION MANUAL RVE



ORIGINAL MANUAL



ace
SOLUTIONS

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Contents

1. INTRODUCTION	2
2. HANDLING AND TRANSPORT:	3
3. RVE SPECIFICS:	3
4. MACHINE POWER:	6
5. SAFETY:	7
6. COMMISSIONING:.....	8
7. DISPLAY PAGES:	9
a) MENU:	12
b) FORMAT:	12
1. STATION ACTIVATION:	14
2. FILLING 1 (Main filling) Page 1:	14
3. FILLING 1 (Main filling) Page 2:	16
4. CAPPING:	16
5. LABELLING:	17
6. FORMAT MANAGEMENT:	18
7. CREATE FORMAT:	19
c) COUNTER:	20
d) PARAMETERS:	21
8. FILLING CIRCUIT DISASSEMBLY:	23
9. PRINT MANAGEMENT:	30
10. FIRST-LINE SPARE PARTS LIST:	31

1. INTRODUCTION

ACE Solutions thanks you for the confidence you have shown in the company by choosing the "RVE" packaging machine.

This manual will allow you to get started quickly and safely with your new equipment.

Safety:

You will find in this manual 3 levels of information, represented by the following pictograms:



DANGER

Failure to follow these instructions can result in irreversible injury or serious damage to property.



WARNING

Failure to follow these instructions can result in slight injury or damage to property.



Represents important information for the user.

INFORMATION

Certain operations require the intervention of qualified personnel, and are indicated by the following pictogram:



The CE plate riveted on this machine certifies its compliance with currently applicable European standards.

2. HANDLING AND TRANSPORT:



DANGER

Handling of the machine must only be carried out by qualified personnel.



- Depalletize and unpack the machine.
- Check the general condition of the machine, transport may have caused damage
- Check that the material received corresponds to the delivery slip.
- Any problem must be reported immediately, in writing, to the carrier, as well as to ACE Solutions.
- The machine should only be moved using a forklift truck.
- Once the machine is in place, it will need to be levelled using its adjustable feet.



WARNING

The machine must be perfectly level before it is put into service!

3. RVE SPECIFICS:

TYPE OF MACHINE: RVE



RATE: Semi-automatic filling, capping and labelling machine

Description:

This semi-automatic filling machine has been developed to meet medium and large series packaging requirements for liquids and semi-liquids.

Its design has been studied to eliminate all areas of product retention.

All of our nozzle tubes or nozzles are studied according to the container and the conditioned product in order to eliminate the problems of drops.

Advantages:

- Very easy to use.
- The filling tolerances are + or - 1%

TECHNICAL DATA:

Voltage: 230 Volt 50 / 60Hz

Power: 2 kW

Weight: 450 Kg

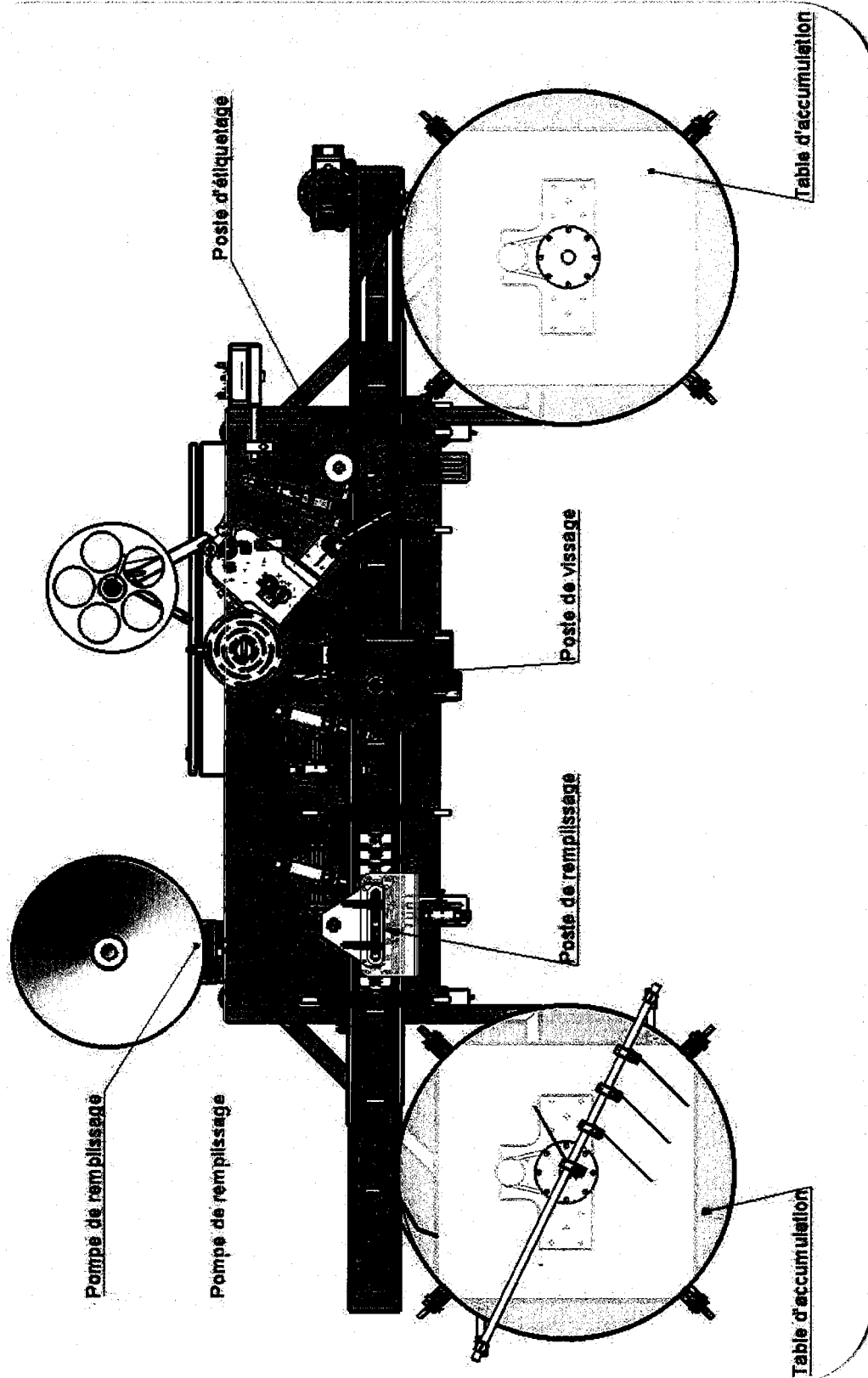
Ambient temperature: 0 to 40°C

Product temperature: 0 to 60°C

Washing temperature: 130°C max 10 minutes

Rate: Up to 1000 bottles / hour.

Overview:



4. MACHINE POWER:



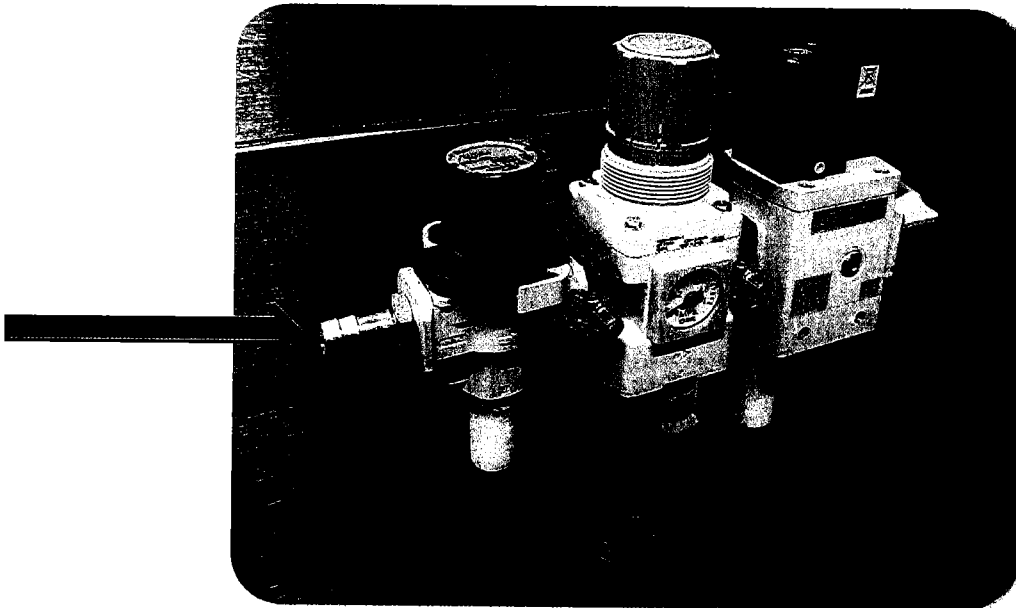
Connection of the machine to power supplies must be carried out by qualified personnel.

Electrical connection:

Connect the 230V Phase + Neutral + Earth: Connect the machine plug to a socket protected by a circuit breaker.

Pneumatic connection:

Connect the air supply. 12mm inner diameter pipes.



5. **SAFETY:**



DANGER

Safety devices must be regularly checked.



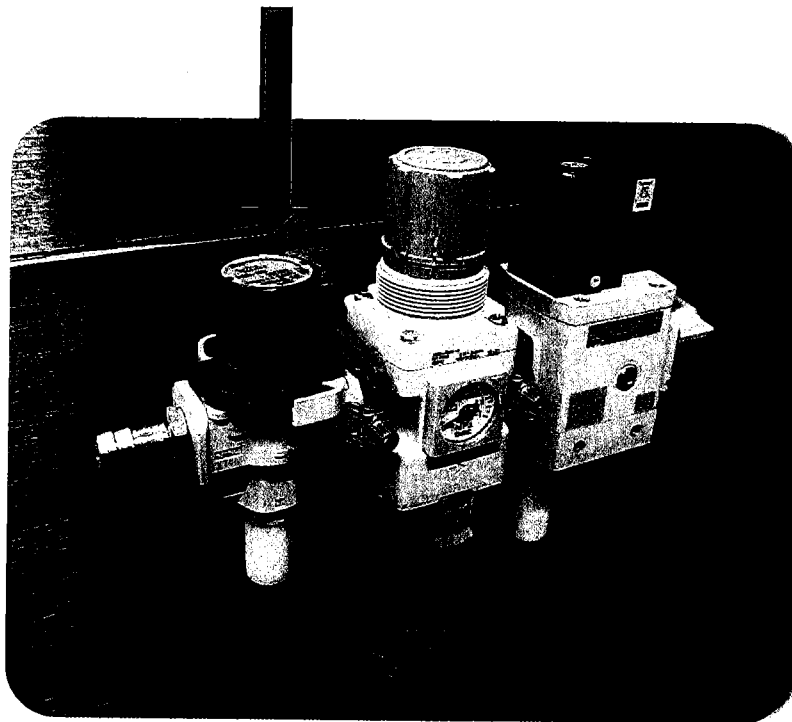
MAIN DISCONNECTOR

6. COMMISSIONING:

→ Switch on the machine by operating the disconnecter:

The warning light located just above the disconnecter should light up.
If not, check the power supply.

→ Open the compressed air tap.



7. DISPLAY PAGES:



Once your "RVE" is powered up you will see the control screen light up: this touch screen is your communication interface.

All your instructions and all your adjustment parameters are input using this simple, ergonomic screen.

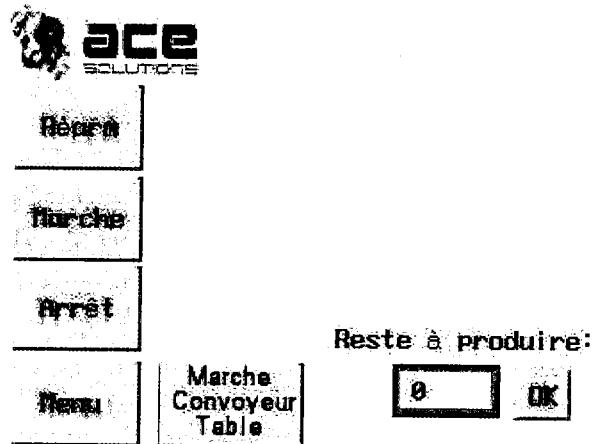


As you can see, after a short loading time the home page is displayed, on which you will find:

- The logo of the "ACE Solutions" Company
- The contact details of the company.

Just touch the screen to continue.

You will arrive on the General Information page:



This page provides a general view of your machine.

This page will be the page in normal operation.

On this page you will see information about the current faults of the machine:

→ **"Init in progress"**: The machine searches for its initial position: the pump rises before descending again.

→ **"General Stop Delay - Press Reset"**: The machine switches to "Energy saving" mode when not in use for 10 minutes. To restart it you must press the "Reset" button.

→ **"Cap applicator misalignment - Press emergency stop"**: There is a problem with the cap applicator motor, check that the actuator can move properly. Press the emergency stop to reset the machine, if the fault persists please contact ACE Solutions.

→ **"Cap applicator misalignment - Press emergency stop"**: There is a problem with the cap applicator motor, check that the actuator can move properly. Press the emergency stop to reset the machine, if the fault persists please contact ACE Solutions.


→ **"Problem with pump parameter settings, increase the speed, acceleration or deceleration of the main pump"**: There is a problem with the configuration of the main pump, to adjust these parameters go to the Display page section.


Data:


[REDACTED]: Number of products remaining before filling is deactivated. The OK button allows you to restart production according to the chosen quantity.




Buttons:

: Used to reset the faults or the machine.

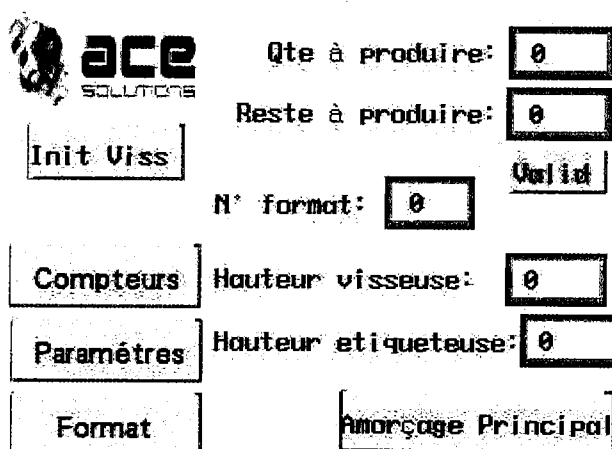
: Used to stop the machine when it is in production: the machine will end its cycle and then stop. CAUTION this will not empty the machine if bottles are still on the conveyor.

: Used to start the machine. CAUTION: the machine will start its filling and capping cycles.

: Used to activate the conveyor and the input and output tables.

: Enables access to the other pages of your touchscreen interface.

a) MENU:



The screenshot shows the ACE SOLUTIONS menu interface. It features the ACE SOLUTIONS logo at the top left. Below the logo are three buttons: 'Init Viss', 'Compteurs', and 'Paramètres'. To the right of these buttons are three input fields: 'Qte à produire:' with a value of 0, 'Reste à produire:' with a value of 0, and 'N° format:' with a value of 0. Below the 'Qte à produire:' field is a 'Valid' button. Below the 'Reste à produire:' field is a 'Hauteur visseuse:' input field with a value of 0. Below the 'N° format:' field is a 'Hauteur etiqueteuse:' input field with a value of 0. At the bottom of the interface are two buttons: 'Format' and 'Amorçage Principal'.

Data:

Qte à produire: Used to enter the number of products you want to make, between 2 and 32,000. If this parameter is set to 0, the machine does not take it into account.

Reste à produire: Number of products remaining before pot loading is deactivated. The "Valid" button is used to restart production with the selected quantity.

N° format: Used to select the format you wish to produce, between 0 and 19. Entering a new number will automatically load all the parameters of this new format.

Buttons:

Init Viss: Used to activate the priming cycle of the machine. Priming will only start if the start button on the main page is pressed, and will only launch the main filling cycle: provide a container to collect the product at the outlet of the beak.

Compteurs: Enables access to format settings.


Paramètres: Enables access to the machine parameters. Be careful: these parameters are optimized, and must not be modified, except at the request of an ACE Solutions technician.

Format: Enables access to the machine's counters: daily counter, totalizer and hour counter.

b) FORMAT:



All of the values contained in this menu are saved by format number.



N° format:

Activation poste

Remplissage 1 Etiquetage

Vissage

Vi tesse: Gestion Format

Data:

: Used to enter the required rate of the machine: between 0 and 30 products per minute.

: Used to select the format you wish to produce, between 0 and 19. Entering a new number will automatically load all the parameters of this new format.

Buttons:

: Used to activate the operation of the various functions.

Enables access to the various main filling parameters.


Enables access to the various filling 2 parameters. (Option).

Enables access to the various parameters of the cap applicator.

Enables access to the various labelling parameters.

Enables access to format management, format copy, and format creation.

1. STATION ACTIVATION:



Activation poste:


Remplissage: ☐ OFF

Visage: ☐ OFF

Etiquetage: ☐ OFF

This page indicates all the functions of your machine: you can activate or deactivate the stations as you wish.

2. FILLING 1 (Main filling) Page 1:



START CYCLE:

Dose: ml

ON: OFF:

Uitesse: Sep 1

Acc: Sep 2

Decc: MD

This page contains the initial parameters of the "Main filling" function.


Data:


START CYCLE: The Start Cycle value is used to define when the filling cycle starts.


A higher ON value will activate the cycle later, a lower value will activate it quicker.


Uitesse: Used to adjust the advance speed of your pump in mm/s (you may not notice any change if the acceleration and deceleration values are low).




: Used to adjust the acceleration of the pump during the product injection phase: the higher the value, the quicker the pump will accelerate.

: Used to adjust the deceleration of the pump during the product injection phase: the higher the value, the later the pump will start to decelerate.


: Used to adjust the dose to be injected (in ml), this value is only an indication; the dose may need to be adjusted depending on the target weight.

: Used to adjust the bottle locking cylinder. The ON value is used to release the bottle quicker or later.

A higher ON value will activate the cycle later, a lower value will activate it quicker.


: Used to adjust the bottle release cylinder. The ON value is used to release the bottle quicker or later.

A higher ON value will activate the cycle later, a lower value will activate it quicker.

: Used to adjust the timing of the lowering of the nozzle into the bottle. The ON value is used to lower the filling nozzle earlier into the bottle.

A higher ON value will activate the cycle later, a lower value will activate it quicker.

Buttons:

: Confirms the configuration, which will also be saved, no return is possible.

: Enables access to the other parameters of the main filling function.

: The "Menu" button returns you to the "Format" page.



If the speed or acceleration set are too slow, the following message will be displayed:

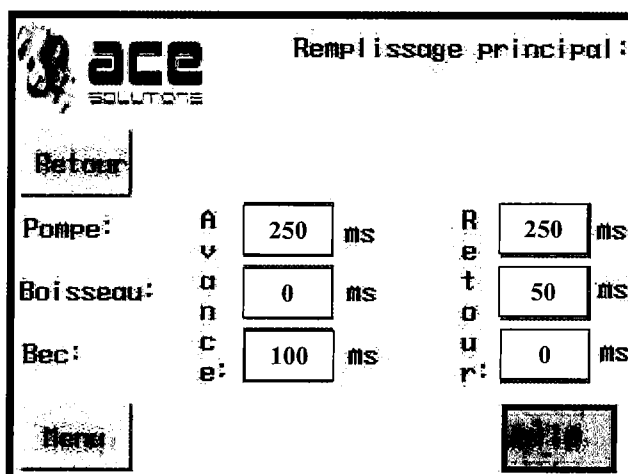
"Problem with pump parameter settings, increase the speed, acceleration or deceleration of the main pump". In this case, the pump may only carry out one in every two cycles.

To solve this problem, there are several solutions:

- Either lower the machine rate.
- Or increase the speed of the pump.
- Or increase the acceleration of the pump.
- Or increase the deceleration of the pump.
- Or lower the pump return time on page 2.

Caution: These changes will have an impact on filling operation.

3. FILLING 1 (Main filling) Page 2:



Remplissage principal :	
Retour	
Pompe:	Avance: 250 ms Retour: 250 ms
Boisseau:	Avance: 0 ms Retour: 50 ms
Bec:	Avance: 100 ms Retour: 0 ms
Menu	

This page contains the secondary parameters of the "Main filling" function.


Data:

The values on this page are used to shift the various phases of the filling cycle. All these values represent offsets from the "Start Cycle" on the previous page.

The "Advance" values are the offsets during the injection phase and the "Feedback" values represent the offsets during the suction phase.


Buttons:

: Confirms the configuration, which will also be saved, no return is possible.

: Enables access to the other parameters of the main filling function.

: The "Menu" button returns you to the "Format" page.

4. CAPPING:




		ON:	OFF:
Vitesse:	1800	355 Sep 3	100
Couple:	50	0 Sep 4	80
		100 MD	300
		90 Serrage	330
		120 Pince	250
		120 Rotation	250

Valid

Menu

Data:


This page contains all the parameters of the "CAPPING" function.

: The ON and OFF values activate and deactivate the actuators as required.

A higher ON value will activate an actuator later, a lower value will activate it quicker.

A higher OFF value will keep the actuator activated longer, a lower value will deactivate the actuator quicker.

Buttons:

: Confirms the configuration, which will also be saved, no return is possible.

: The "Menu" button returns you to the "Format" page.

5. LABELLING:





Etiquetage:

Temps avant Banderolage	550	ms
Temps Banderolage	2000	ms
Temps Declenchement:	150	ms

Menu

Valid

Data:

This page contains all the parameters of the "LABELLING" function.

Time Before Wrapping: Sets the time before the wrapping system is activated.

Wrapping Time: Sets the time for the operation of the wrapping system.

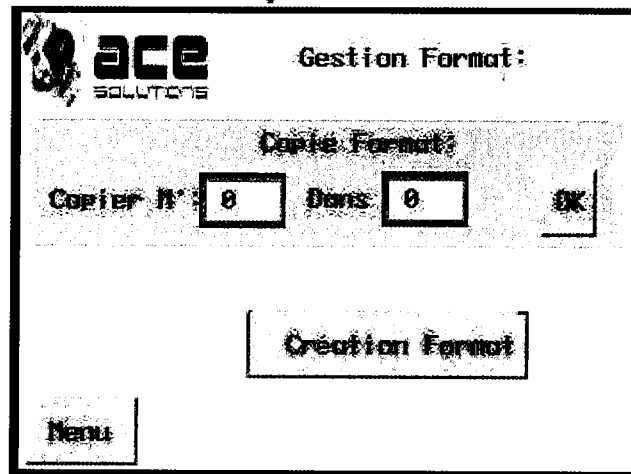
Trigger time: Sets the time between the detection of the bottle and activation of the station.

Buttons:

: Confirms the configuration, which will also be saved, no return is possible.

: The "Menu" button returns you to the "Format" page.

6. FORMAT MANAGEMENT:





This page is used to copy an existing format to a new format number.



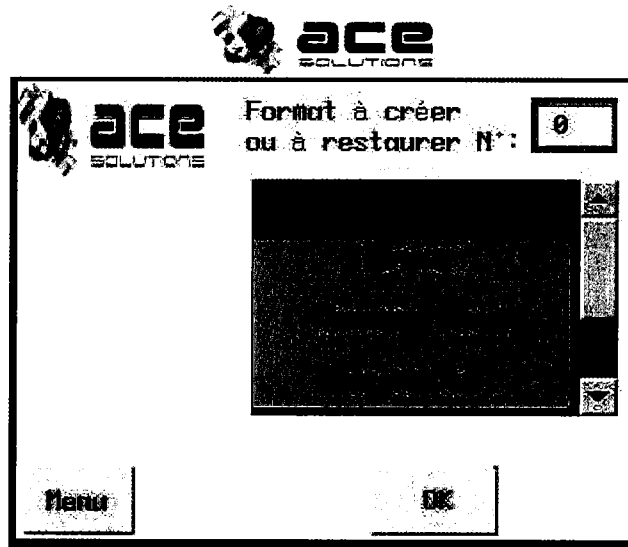
If you copy to an already existing number, all of its values will be lost.

Buttons:

: Enables access to a Create Format page.

: The "Menu" button returns you to the "Format" page.

7. CREATE FORMAT:



This page is used to create a format based on standard parameters depending on the type of product.



If you copy to an already existing number, all of its values will be lost.

Create Format procedure:

- ➔ Enter the number of the format you want to create.
- ➔ Choose the type of product you want to make.
- ➔ Validate with OK to create the new format.



The new program must be selected in order to produce it.

Buttons:

: The "Menu" button returns you to the "Format" page.

c) COUNTER:



The image shows a control panel for ACE Solutions. It features three digital displays and a button. The top display is labeled 'Compteur Total:' and shows the number '0'. Below it, the 'Compteur Horaire:' display shows '0' followed by 'H' and '0' followed by 'min'. At the bottom, the 'Compteur Journalier:' display shows '0' next to a button labeled 'RESET'.

Data:

: Total number of products output by the machine since its installation.

: Machine operating time since installation.

: Total number of products output by the machine since the last reset.

Buttons:

: The "RESET" button is used to reset the daily counter.


d) PARAMETERS:



CAUTION: Changing these parameters can cause malfunctions. They must be changed with





full knowledge of the implications.

 Offset Pompe 0.000 Menu	ON:		OFF:	
		355	Arret Rempli	5
		345	Arret Vissage	355
		2	Charge Rempli	5
		5	Bourrage Rempli	5
		2	Charge Viss	5
		2	Bourrage Viss	5

Data:

This page contains the general parameters.


: Used to correct the dosage settings, and to correct the default offset of the main pump.

: The ON and OFF values activate and deactivate the actuators as required.

A higher ON value will activate an actuator later, a lower value will activate it quicker.

A higher OFF value will keep the actuator activated longer, a lower value will deactivate the actuator quicker.

Buttons:

: Pressing the "Menu" button returns you to the "MENU" page.

8. FILLING CIRCUIT DISASSEMBLY:



We recommend that the filling circuit be dismantled after each production run in order to clean the circuit.

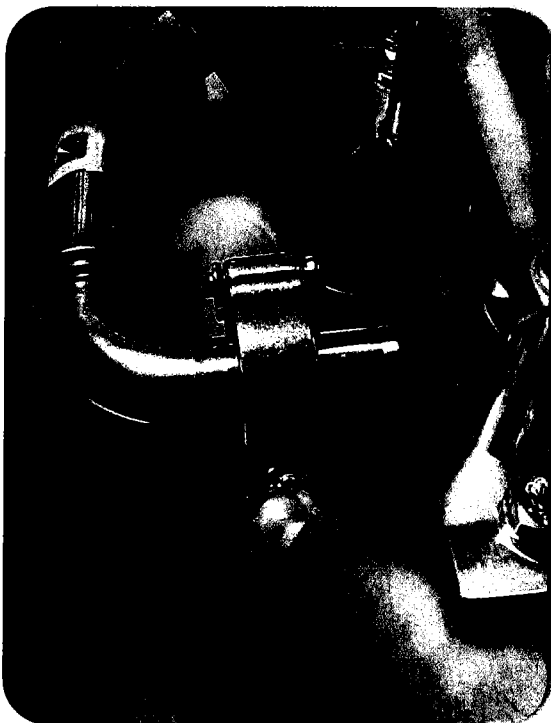
→ Loosen the clamp in order to remove the tank:



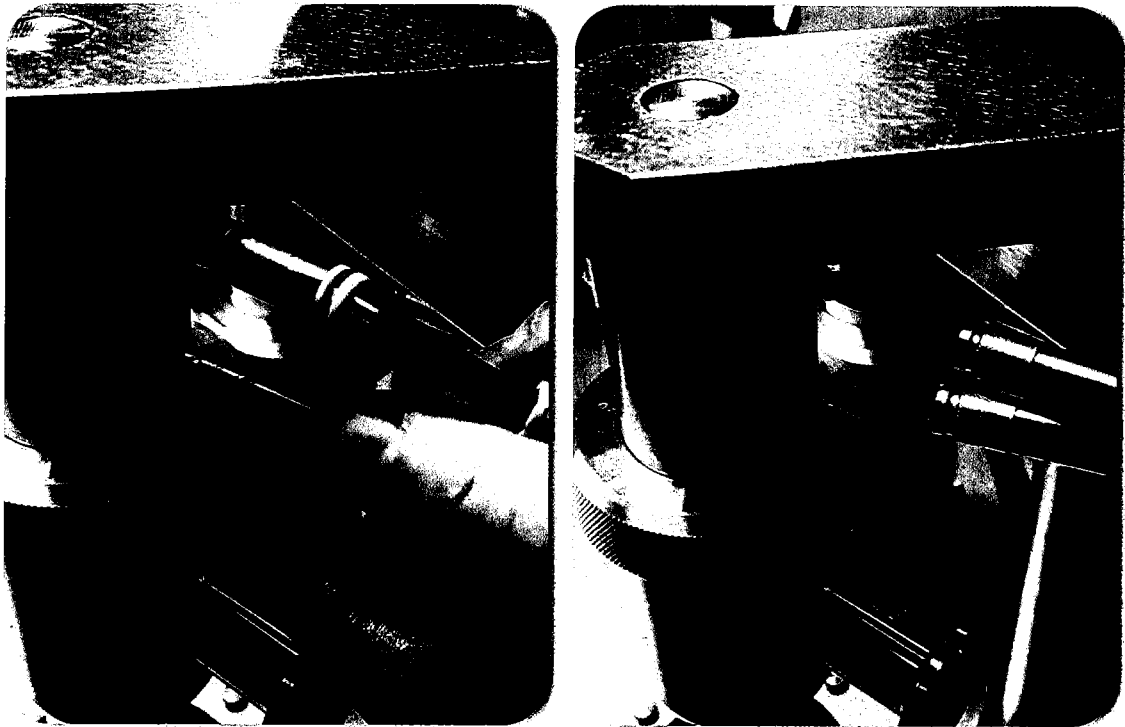
→ To remove the tank:



→ Remove the hose from the tank by untightening the clamp as well as that of the nozzle:



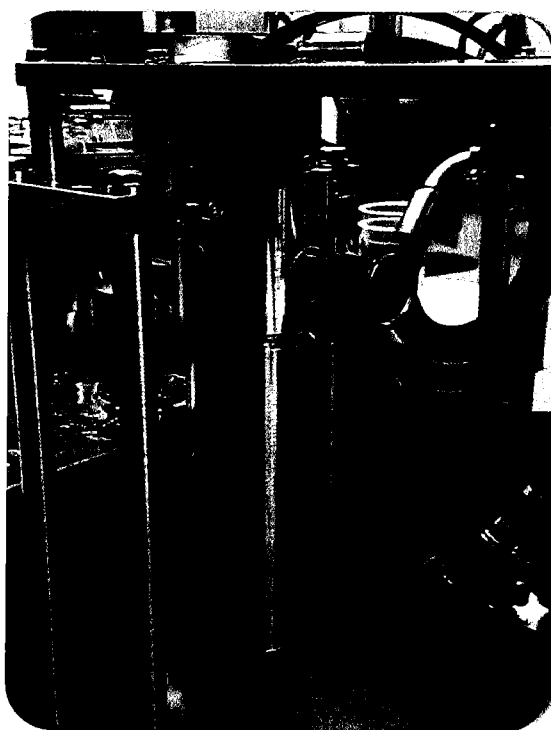
→ Remove the pneumatic pipes for nozzle control:



→ Remove the nozzle from its support:

→ Remove the pump from its support:



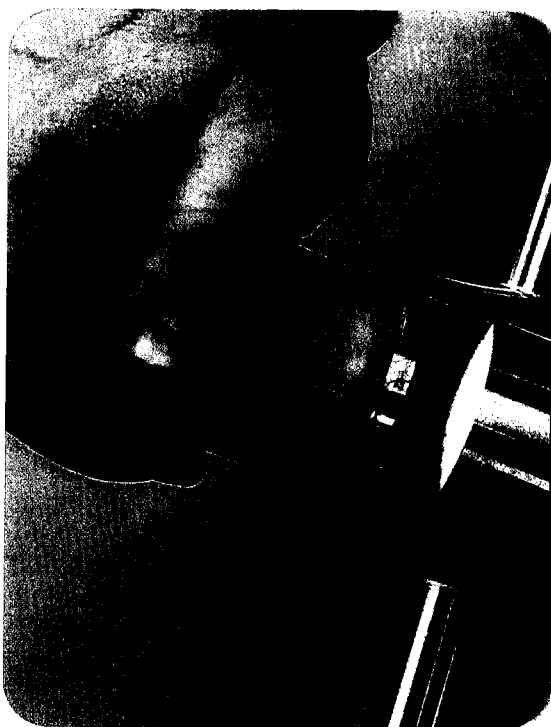


→ Removing the nozzle:





→ Dismantling the pump:





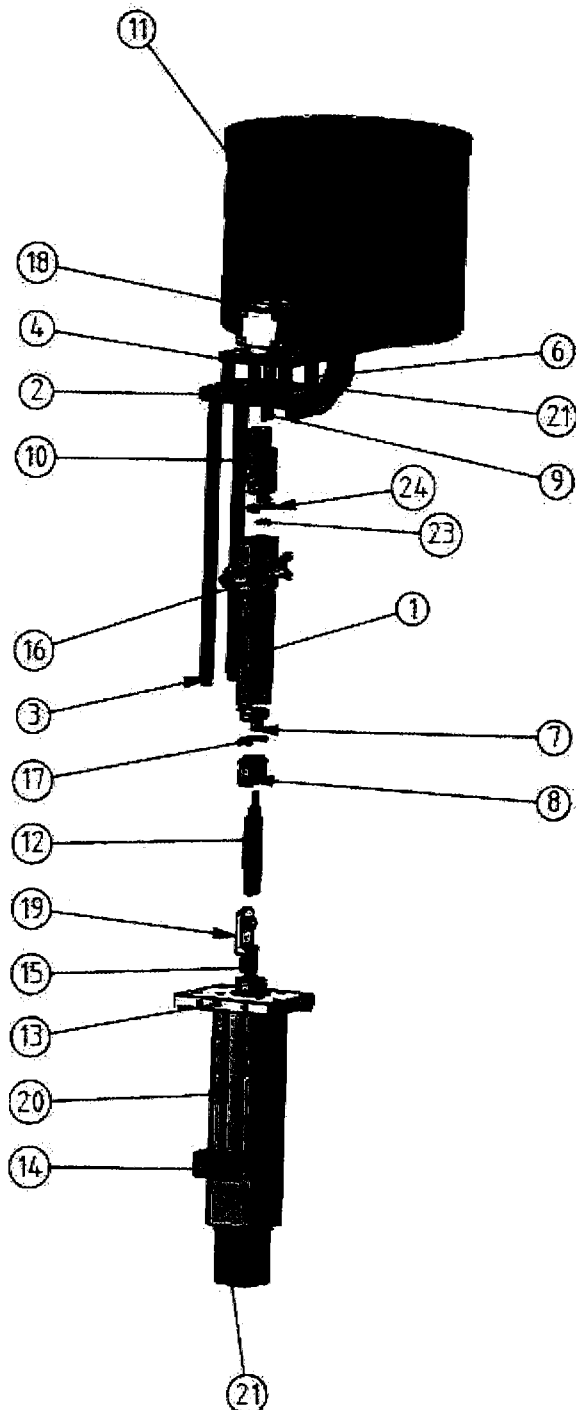
Reassemble by reversing the procedure.

9. PRINT MANAGEMENT:

For further information, please refer to the manual supplied on the USB key of your machine.

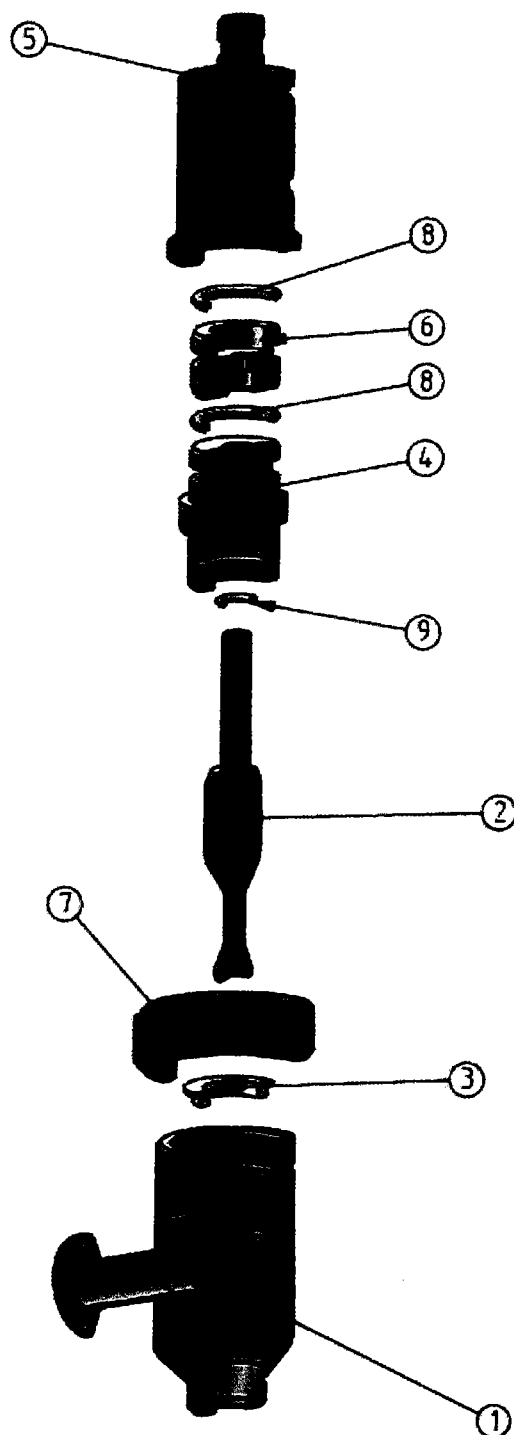
10. FIRST-LINE SPARE PARTS LIST:

Main Dosing Pump:



REP	NUMERO	DESIGNATION	Qté
1	PRT01175	CYLINDRE POMPE YAOURT	1
2	PRT01179	SUPPORT POMPE HAUT	1
3	PRT01180	COLONNE DE POMPE	4
4	PRT01181	PLATINE BOISSEAU	1
5	PRT01182	MAINTIEN POMPE	1
6	PRT01183	COLONNE Ø16 X36	4
7	PRT01188	TETE DE PISTON	1
8	PRT01189	PISTON POMPE	1
9	PRT01198	CLAVETTE BOISSEAU	1
10	PRT01199	BOISSEAU YAOURT	1
11	PRT01714	CUVE YAOURT 20 LITRES	1
12	PRT01729	QUEUE DE POMPE	1
13	PRT01730	SUPPORT VERIN POMPE	1
14	PRT01731	SUPPORT BAS VERIN	1
15	PRT01732	TIGE FILETÉ POMPE	1
16	PRT01736	FÉRULE CLAMP CAN Ø34 TUBE Ø15	1
17	QUI586	JOINT POMPE Ø50	1
18	QUI603	VERIN ROTATIF Ø50 180°	1
19	QUI764	CHAPPE DE TIGE M16	1
20	QUI765	VERIN À VIS 63 CT00	1
21	QUI560	MOTEUR 200W SERIE G	1
22	QUI774	JOINT SPI 40X52X7	1
23	QUI600	JOINT TORIQUE SILICONNE Ø18.3X3.6	1
24	QUI599	JOINT TORIQUE SILICONNE Ø40.64X5.33	1

Filling nozzle:



REP	NUMERO	DESIGNATION	Qté
1	PRT01434	CORP BEC YAOURT	1
2	PRT01435	OBTURATEUR BEC YAOURT	1
3	QUI015	JOINT DE TIGE EPAULE Ø20	1
4	PRT01436	PALIER BEC YAOURT	1
5	PRT01437	CYLINDRE BEC YAOURT	1
6	PRT01438	PISTON BEC YAOURT	1
7	PRT01439	ECROU DE BEC	1
8	QUI778	JOINT TORIQUE Ø25X3.5	2
9	QUI779	JOINT TORIQUE Ø10X2.2	1