03/2019

Mod: TGV/5D-N

Production code: PRATICA 9-12 AIR-(400/50/3)

Diamond

Diamond
refrigeration equipment



Operating and maintenance manual
TGV / 5D - N

Translation of the original instructions

Thank you for choosing this machine. Please read this manual which will allow you to use the machine in a way that is safe for you and for others. While reading the manual, take the time to familiarise yourself with the new machine and you will be able to appreciate all of its advantages. You will see that it is user-friendly and how it can easily change your working process, optimising it and making it more profitable. You will understand how the technology used will be of great help to your business. DIAMOND machines are the product of years of experience manufacturing machines for processing foodstuffs. The quality of our machines makes them competitive, reliable, user-friendly, low maintenance, quiet, safe and ergonomic.
To keep your machine in proper working order, you must carry out the routine maintenance indicated in the manual. Daily cleaning is fundamental and ensures that machines remain reliable.
To allow us to make sure that the manuals we issue are complete and cover all possible subjects, please send us any comments based on your direct experience of using the machine.
For operator safety and machine integrity, the machine must only be used for the purpose for which it was built. Therefore, any modifications to the machine, any part of its design, safety device or system is strictly forbidden. Such changes will void any guarantees. The manufacturer declines all responsibility in the event of substitution of components with non-original parts, improper use, tampering, lack of maintenance, removal of safety devices and, more generally, any change made to the original design.
Our qualified technical assistance service is always available to you if you have any questions.
Please contact your dealer to solve any technical issues. Do not attempt to solve them yourself, since this may result in serious danger.

All of the staff at DIAMOND and its dealers hope that you will enjoy working with our machines!

This operating and maintenance manual is part of the machine and must always be kept with it, even if the machine is sold to a new buyer.

CONTENTS

1. GENERAL INFORMATION ***7***

1.1 General safety instructions 7

1.2 Information about precautions, specific warnings and symbols 7

1.3 Testing, guarantee and liability 8

1.4 Purpose of the manual 8

• 1.4.1 Structure of the manual 8

• 1.4.2 Modifications and additions 9

1.5 Manufacturer identification 9

• 1.5.1 Requesting help – Technical assistance service 9

• 1.5.2 Ordering spare parts 10

• 1.5.3 Downloading the technical manual 10

1.6 Machine identification data - CE marking 10

1.7 Intended uses 11

• 1.7.1 Reasonably foreseeable improper use 11

1.9 Packaging, transportation and storage 12

• 1.9.1 Transportation, lifting and handling 12

• 1.9.2 Machine storage 12

2 TECHNICAL SPECIFICATIONS ***13***

2.1 General description of the machine 13

2.2 Illustration of the machine as a whole and its components 14

2.3 Working and control position 16

2.4 Machine technical data 16

2.5 Noise 17

2.6 Items supplied with the machine 18

3 GENERAL SAFETY REGULATIONS ***18***

3.1 General instructions 18

3.2 Safety devices present on the machine 20

• 3.2.1 Safety device installed on the cover 20

• 3.2.2 Safety device of the extraction door chute 20

• 3.2.3 Safety symbols and stickers 21

3.3 Personal Protective Equipment (PPE) 21

• 3.3.1 Clothing 21

• 3.3.2 Gloves (hand protection) 21

• 3.3.3 Hair cover 21

4 INSTALLATION INSTRUCTIONS ***22***

4.1 General requirements 22

4.2 Ambient conditions 22

4.3 Spaces needed for use of the machine 23

4.4 Installation and assembly sequences of machine components 23

4.5 Electricity supply 24

4.6 Air-cooled machine 25

5 MACHINE OPERATION ***26***

5.1 Controls 26
5.2 Switching on and starting the machine 28
5.3. Programming 29
• 5.3.1 Adjusting the temperature-based cycle (P1) 30
• 5.3.2 Adjusting the time-based cycle (P2) 30
• 5.3.3 Adjusting the buzzer (P3) 31
• 5.3.4 Adjusting the granita program (P4) 31
5.4 Temperature-based cycle production 32
• 5.4.1 Modifying the cooling temperature with the temperature-based cycle started 34
5.5 Time-based cycle production 34
• 5.5.1 Modifying the churning time with the time-based cycle started 35
5.6 Temperature-based cycle granita production 36

6 WASHING ***37***

6.1 Rinse or complete wash 37
6.2 End of day washing and sanitising 39
• 6.2.1 Sanitising phases at the end of daily work 39

7 ROUTINE MAINTENANCE ***46***

7.1 Type of checks and interval between them 46
7.2 Maintenance work 46
7.3 Maintenance intervals and time needed 46
7.4 Maintenance sheets 47
7.5 Checks on safety devices 49
• 7.5.1 Safety device installed on the cover 49

8 TROUBLESHOOTING ***50***

8.2 Troubleshooting – flowchart 54

9 INACTIVITY ***59***

9.1 Keeping the machine efficient if it remains inactive 59

10 DECOMMISSIONING THE MACHINE ***60***

10.1 Description of disposal method 60

Declaration of Conformity

(according to 2006/42/EC, Annex II, No.1 A)

Supplier:.....

Address:.....

.....

Tel:.....

Fax:.....

We hereby declare that the

Type of machine	Gelato reezer
Name of the model	**TGV / 5D - N**
Year of production	
Serial number	

FULFILS

All relevant provisions of Directive 2006/42/EC.

The machinery is also in compliance with all a relevant provisions of the following directives:

Reg. EC n. 1935/2004	*Materials intended to come into contact with food;*
2011/65/EU	*RoHS 2 directiv;*
2014/30/EU	*Electromagnetic compatibility;*
2014/35/EU	*Low voltage directive.*

Signature of an authorised person

1 GENERAL INFORMATION

1.1 General safety instructions

Before using the machine, carefully read all of this manual, which is an integral part of the machine.

Knowing the information and instructions in this manual is essential for users to use the machine correctly and safely.

The manufacturer declines all responsibility in the event of modifications, tampering or any operations carried out in a way that does not coincide with what is specified in this manual, since they may put the health and safety of personnel and/or objects at risk. The manufacturer reserves the right to take legal action against anyone who modifies its machines without written permission.

The person in charge of machine use and/or the employer must make sure that users are trained and aware of all information and instructions in the documentation supplied.

Users are only permitted to carry out work on the machine which is within their area of responsibility and for which they have been trained.

The user shall be held fully responsible for any modifications he makes to the machine.

Only operators with the appropriate professional technical qualifications may carry out checks or repairs on the machine. Reliable operation and optimised machine performance are only guaranteed by the use of original spare parts. The manufacturer reserves the right to make any changes considered appropriate to the machine described without prior notice.

The user is responsible for all operations needed to keep the machine efficient during its use.

1.2 Information about precautions, specific warnings and symbols

Where necessary, this manual includes information alongside machine operating and maintenance instructions or procedures.



There are also indications marked with the “Caution/Danger” symbols, shown in bold type and upper case letters to make them clearly visible.

The “GENERIC CAUTION/DANGER” symbol is used to indicate that failure to comply with the safety regulations described in this manual could result in **“Damage to the machine and/or objects and injury to machine users”**.



1.3 Testing, guarantee and liability

Testing

Before being sent to the customer, the machine must successfully pass testing by the manufacturer.

Guarantee

DIAMOND guarantees the machines put on the market for 12 months from the date of delivery. During the guarantee period the seller undertakes to substitute, free of charge ex works, any parts which may develop a fault due to obvious manufacturing defects or poor quality materials. Parts substituted remain the property of DIAMOND and must be returned to its premises, free of all charges. If the substitution of defective machine parts requires work by technical personnel, labour costs and any travel and accommodation expenses will be charged to the buyer. Top ups of refrigerant gas are not covered by the guarantee. The guarantee shall be void if the machine is used in a way that does not conform to what is indicated in the manufactur-er's "operating and maintenance manual". The guarantee shall be void if the user, deliberately or inadvertently, damages, modifies, disassembles and/or repairs (even only partly), the machine, without written permission from the manufacturer. The guarantee shall also be void if the electric and water connections used to supply the machine, (which are the buyer's responsibility), are made in a way that does not conform to what is indicated in the machine "operating and maintenance manual". Interruption of the payment agreed in the sales proposal and accepted by the seller will result in suspension of the guarantee.

Liability

DIAMOND declines any responsibility and obligation for any incident involving persons and objects resulting from use of the machine in any way that does not conform to what is indicated in the "operating and maintenance manual" and/or due to manufacturing defects of the components/materials present in the machine. It shall also be considered expressly excluded from any other claim for reimbursement for lost earnings attributable to any failure to operate.

1.4 Purpose of the manual

This manual was drawn up with the aim of providing all machine users, in the most complete and clearest way possible, with all information necessary for machine installation, use and maintenance, from the time the machine reaches the market until the day it is decommissioned and/or scrapped.

It also lists all procedures useful for dealing with emergencies which may arise during use of the machine as described by the manufacturer and those which are reasonably foreseeable.

IMPORTANT NOTE: THE MANUAL DOES NOT SUBSTITUTE TECHNICAL TRAINING FOR PERSONNEL WHO WILL USE THE MACHINE. IT SHOULD BE CONSIDERED A GUIDE TO THE USE OF MACHINE FUNCTIONS.

1.4.1 Structure of the manual

The manual consists of a single document drawn up in descriptive language and with all figures necessary for correct interpretation and implementation of the activities required for machine operation and maintenance.

This manual includes all instructions with which the user must be familiar and information which the user may consult in order to achieve the aims of the manual.

1.4.2 Modifications and additions

This manual reflects the state of the machine at the time it reached the market and is considered an integral part of the machine.

Any modifications, improvements or adjustments applied to machines subsequently marketed do not oblige DIAMOND to apply such changes to a machine previously supplied, nor to consider it and the related manual lacking and inadequate.

DIAMOND reserves the right, should it deem it appropriate and for valid reasons, to update the manuals already on the market, sending its customers sheets of technical and/or operating updates which must be considered and kept in the manual.

1.5 Manufacturer identification

Information for identifying the manufacturer:

DIAMOND EUROPE

1.5.1 Requesting help – Technical assistance service

Any request for action by the Technical Assistance Service must be sent by fax or e-mail to the dealer from which the machine was purchased. The manufacturer's sales/support network can be found at http://www.diamond-europe.com

When requesting help or technical assistance, always specify:

1. type of machine, model, product code, serial number and year of construction;
2. faults found;
3. dealer through which the machine was purchased;
4. tax document indicating the date of machine purchase by the user.

1.5.2 Ordering spare parts

When requesting spare parts, contact your dealer or consult the up-to-date list of authorised service centres on the official DIAMOND website: http://www.diamond-europe.com

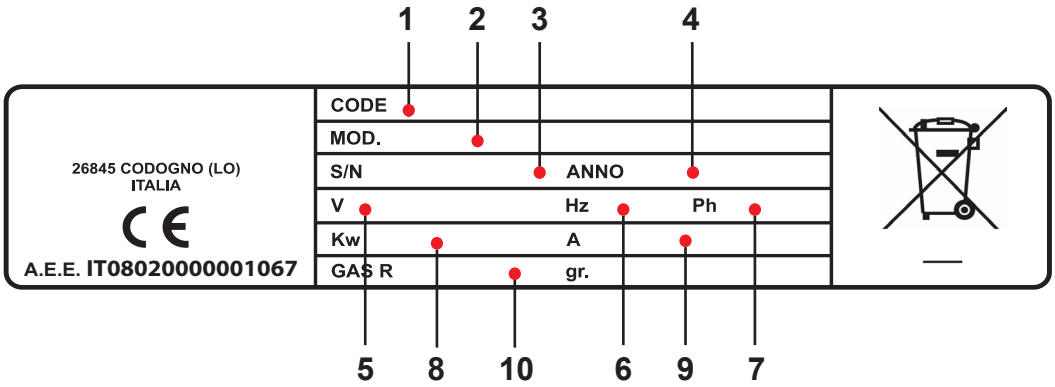
1.5.3 Downloading the technical manual

Hard copy technical manuals are replaced by “PDF” files which can be down-loaded directly from this address: http://www.diamond-europe.com

A new window is opened, containing step by step instructions for registering and then for downloading the “TECHNICAL MANUAL”.

1.6 Machine identification data - CE marking

The data plate with CE marking is located at the top of the machine rear panel and shows all of the data needed for machine identification.



1. Machine code;
2. Model – type of machine;
3. Machine serial number;
4. Date of production (Year);
5. Electric power supply voltage;
6. Electric power supply frequency;
7. Number of phases;
8. Max. power;
9. Max. current drawn;
10. Type and quantity of refrigerant gas.

This data must be indicated in all information documents, for example for every request for technical assistance or when requesting spare parts.

REMOVAL OF OR TAMPERING WITH THE IDENTIFICATION PLATE IS STRICTLY PROHIBITED.

1.7 Intended uses

The **TGV/5D-N** artisan gelato vertical batch freezer with automatic extraction is designed for:

1. mixing, churning the pasteurized mix or ready-packaged foods, inserted in the machine cylinder, for making gelato and sorbet.
2. chilling and freezing the ingredients processed, to obtain a creamy gelato, a sorbet or a granita.

This processing takes place in a vertical cylinder using a mixer supplied with the machine.

The machine operating modes, for making gelato and sorbet, include a “time-based” operating cycle and a “temperature-based” operating cycle.

Plus, using a specific program with a temperature-based operating cycle, it is possible to make granita.

THE MACHINE CANNOT BE USED FOR OTHER PURPOSES WITHOUT DIAMOND'S AUTHORISATION. DIAMOND WILL NOT BE RESPONSIBLE FOR DIRECT OR INDIRECT DAMAGES DUE TO IMPROPER USE OF THE MACHINE.

1.7.1 Reasonably foreseeable improper use

Based on experience using the machine in actual operating conditions, we recommend that you follow these instructions:

1. Do not insert in the cylinder a quantity of mix that is less than that recommended, as it could lead to ice forming on the cylinder wall. That would make the machine noisy, cause wear and damage to the mixer scrapers. **The suitable quantity of product which can be processed is indicated in sec. 2.4 “Machine technical data" of this manual.**

2. Do not insert in the cylinder a quantity of mix that is more than that recommended, as it could prevent correct mix churning, and the product can leak out of the cylinder. That would stress the mixer’s motor-driven shaft. **The suitable quantity of product which can be processed is indicated in sec. 2.4 “Machine technical data" of this manual.**

3. Do not start the machine until you have put the mix in the cylinder.
   The mixer must not operate with no product in the cylinder, or the machine will be damaged.

4. Do not press the extraction button when the mix or product in the cylinder is liquid, because the high rotating speed of the mixer (counterclockwise) would make the product come out of the cylinder suddenly (Consult section 5.1 “Controls” in this manual).

5. At the end of processing do not lift the cover and do not remove the mixer fitted in the cylinder while the temperature of the remaining product and/or of the surface of the cylinder is such that it risks causing injuries due to contact with or proximity to parts of the machine or materials at a very low temperature. Use suitable gloves that protect against low temperatures and/or use suitable protective clothing.

1.8 Information for personnel authorised to use the machine

This manual contains the information needed by authorised personnel to correctly use the machine.

A knowledge of and compliance with the general safety instructions and danger warnings contained in this manual are the conditions for proceeding, in minimal risk conditions, with installation, putting into service, operating and maintenance of the machine.

Personnel authorised to use the machine:

OPERATOR: a person trained for routine operation of the machine, that is to say, loading products to be processed, running recipes, cleaning and routine maintenance.

QUALIFIED TECHNICIAN: a person whose training and professional education gives him a knowledge of machine service conditions, and who is able to work on the machine and recognise and avoid any dangerous conditions.

1.9 Packaging, transportation and storage

The machine is packaged in a wooden or cardboard crate on a pallet having dimensions and features suitable for the type and weight of the machine. The machine will be delivered packaged, ensuring that it is protected from the elements.

Each package is marked with the following information:

- Type of machine, model and serial number
- Net and gross weight
- Machine destination



Labels are applied on the package to indicate the following:

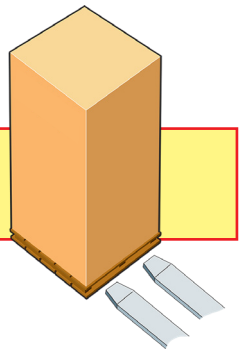
- Handle with care
- This way up
- Protect from rain
- Do not stack
- Protect from heat sources
- Fragile

1.9.1 Transportation, lifting and handling

THE PACKAGE MUST ONLY BE HANDLED BY QUALIFIED TECHNICAL PERSONNEL.

When the machine is delivered, check that during transportation in addition to visible damage no other damage was caused which could compromise correct operation. On the delivery note, write “Subject to approval” to show that acceptance of the machine is subject to checks. If any damage is found, within 48 of receiving the machine, report the damage to the haulier and the manufacturer.

Use a pallet truck or a fork-lift truck, inserting the forks in the holes in the pallet. Use equipment with suitable load-bearing capacity.



MOVE THE MACHINE USING LIFTING EQUIPMENT WITH A SUITABLE LOAD-BEARING CAPACITY. DO NOT ATTEMPT TO LIFT THE MACHINE BY HAND.

1.9.2 Machine storage

The package must not be subjected to impacts, vibrations and other loads.

The machine must be stored indoors, in an area free of aggressive agents, at a temperature not lower than +2 °C, not higher than +55 °C and with a humidity level of between 10% and 95% (without condensation).

2 TECHNICAL SPECIFICATIONS

2.1 General description of the machine

The **TGV/5D-N** range of machines covered by this manual are vertical batch freezers for making gelato, sorbet and granita. Processing of the mixes or ready-packaged foods is performed in a single vertical cylinder which is: "easy to fill, the product is always visible and the ingredients can be added at any time".

TGV/5D-N model can mix, churn, chill and freeze the ingredients processed, to obtain a creamy gelato, a sorbet or a granita.

The machine operating modes, for making gelato and sorbet, include “temperature-based” or “time-based” operating cycles.

Plus, using a specific program, with a temperature-based cycle, it is possible to make granita.

www.....

2.2 Illustration of the machine as a whole and its components

1 Cover
2 Control panel
3 Cylinder
4 Mixer
5 Food-safe plastic paddle scrapers
6 Extraction door lever
7 Extraction door
8 Extraction opening
9 Extraction door chute
10 Basin support
11 Mat
12 Outer panels
13 Air cooled condenser
14 Supporting feet

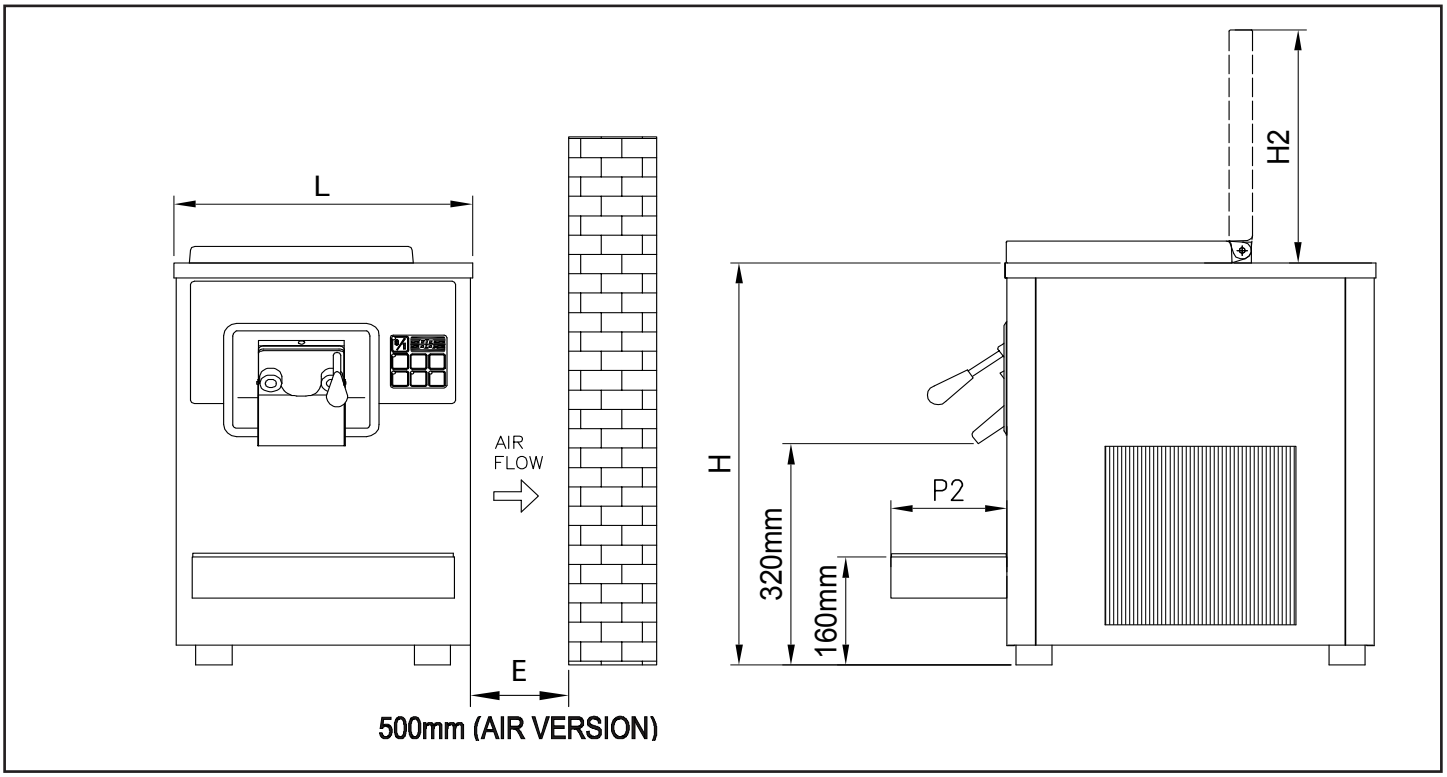

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Diamond
TGV / 5D - N
GELATO FREEZER

2.3 Working and control position

The operator must stand in front of the machine and load the ingredients, programme the recipe, start the processing and unload the processed product at the end of the recipe.

2.4 Machine technical data

Model			**TGV/5D-N**
Net weight		kg	75
Coolant gas (type)			R404A
	Air versions (quantity)	g	650
Quantity of product that can be processed (min.to max.)		L	1-2
Max ambient temperature		°C	+35
AIR version machine: (coolant gas pressure)		bar	17.2 to 22
	"CONDENSATION" (coolant gas temperature)	°C	+40 to +50
AIR version machine: (coolant gas pressure)		bar	1.0 to 0.6
"EVAPORATION" (refrigerant gas temperature)		°C	-20 to -29



Model		TGV/5D-N
Dimensions	L (mm)	410
	D (mm)	510
	H (mm)	590
	H2 (mm)	310
	D2 (mm)	160
	For air version E (mm)	500

RATED POWER / RATED CURRENT			
Power supply voltage (V)	Frequency (Hz)	Phases	**TGV/5D-N**
230	50	1+inverter	1.2 kW - 8 A
400	50	3	1.2 kW - 7 A
220	60	3	1.2 kW - 10 A

2.5 Noise

The machine is designed and built to conform to the requirements of the regulations in force.

The machine's exposure limit and action limit values, relative to the level of daily exposure to the peak noise and acoustic pressure, are respectively less than 80 dB(A) and 135 dB(C). Test documents and certificates for the instruments used for the measurements are filed at DIAMOND and are available to monitoring authorities.

TEST DOCUMENTS AND CERTIFICATES FOR THE INSTRUMENTS USED FOR THE MEASUREMENTS ARE FILED AT DIAMOND AND ARE AVAILABLE FOR THE MONITORING AUTHORITIES.

2.6 Items supplied with the machine

The machine is supplied together with the following items:

1. Operating and maintenance manual.
2. Kit of gaskets and packet of food-safe lubricating grease
3. Spatula for gelato/ice cream
4. Tube brush for cleaning.
6. Machine components: mixer equipped with paddle scrapers made of food-safe plastic

3 GENERAL SAFETY REGULATIONS

3.1 General instructions



THE INSTRUCTIONS LISTED BELOW MUST BE CAREFULLY READ SO THAT USERS ACT APPROPRIATELY ON A DAILY BASIS WHEN OPERATING THE MACHINE AND CARRYING OUT MAINTENANCE. THIS PREVENTS ANY KIND OF ACCIDENT LINKED TO SITUATIONS INVOLVING POTENTIAL RISK FOR PEOPLE AND/OR OBJECTS.

For the safety of machine users, the following safety instructions must be complied with:

1. Do not attempt to start the machine until you have acquired a suitable understanding of how it operates, by reading this manual.
2. In case of doubts, even after carefully reading this manual, contact the technical assistance service.
3. Make sure that all personnel involved in using the machine are aware of the safety instructions.
4. Before starting the machine, the operator must check for any faults and/or defects visible on the safety devices and on the machine. If any faults are found, immediately report them to the manufacturer or to the nearest authorised service centre.
5. The machine must only be used for the purposes for which it was intended and in accordance with the manufacturer's instructions.
6. Every day, check that all safety devices on the machine are operating correctly (see sections 3.2 and 8.5 of this manual).
7. Safety devices must not be removed or bypassed for any reason.
8. Any tampering with or modification of the machine not authorised in advance by the manufacturer shall release the manufacturer from any responsibility for injury/damage to people and/or objects.
9. The identification plate and safety symbols/stickers applied to the machine must be kept in perfect condition. If they are damaged, they must be promptly substituted.
10. Work on electrical connections must only be carried out by qualified technical personnel.
11. The operator must be familiar with the machine controls as described in section 5.1 "Controls".
12. The operator must not carry out any operations which are not described in this manual.
13. Only purchase and use original spare parts, which are guaranteed by the manufacturer. Contact the dealer or the nearest service centre to replace faulty or damaged components.
14. Do not wear clothing, jewellery and accessories which may become tangled in machine moving parts.
15. Keep the area around the machine clear and free of obstructions.

16. Do not put fingers and/or objects in the machine slots or holes.
17. Do not use the machine with damp or wet hands.
18. Always wear suitable gloves and a hair cover for hygiene.
19. Pay maximum attention to all caution and danger signs on the machine.
20. The machine must be installed in a location protected from rain and sun.
21. Do not allow water and/or liquids to penetrate the machine.
22. Do not open the machine panels, since the machine contains components/parts which cannot be maintained by the user.
23. Do not lean or sit on the machine while it is operating.
24. Do not apply to the machine other devices which are not part of the kit supplied by the manufacturer.
25. Clean the machine outer panels with soft cloths moistened with detergent for food-safe machines. Do not use water jets, as they may damage components/parts inside the machine.
26. Do not use any kind of solvent, such as spirit, benzene or thinner to clean any of the machine surfaces.
27. Do not operate the machine while under the effects of alcohol, mental health medications or medications in general.
28. This machine must not be used by persons under the age of 18.
29. Improper use of the machine may cause hazards for operators and/or may damage the machine.
30. If the machine develops any problems not covered in this manual, contact the Technical Assistance Service.
31. Use of the machine is not permitted in places with a potentially explosive atmosphere and in places with ambient conditions not envisaged in point 4.2 of this manual.
32. The machine is not designed to be used by people with reduced physical, sensory or mental capacity.

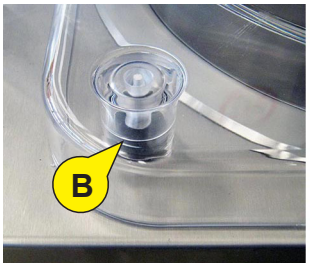
3.2 Safety devices present on the machine

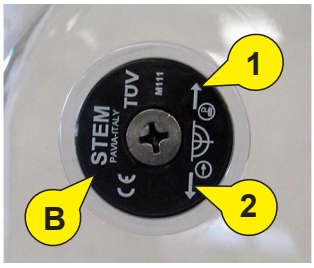
The term safety device refers to: “a component specially designed by the manufacturer and also sold separately from the machine in order to be able to perform safety functions. Therefore, a safety component will be considered a device whose failure to function compromises the safety of exposed persons.

3.2.1 Safety device installed on the cover

The inside of the machine is fitted with a magnetic safety sensor (A, not visible in the photographs), designed to detect the magnet (B) fitted on the cover.

! **Incorrect positioning of the magnet activates a machine alarm, preventing it from starting. The magnet (B) must be positioned with the arrows (1-2) VERTICAL.**





Note: If the cover is opened during an operating cycle (e.g.: to add ingredients), the cycle will be “PAUSED”, then will continue from where it left off only after the cover has been closed.

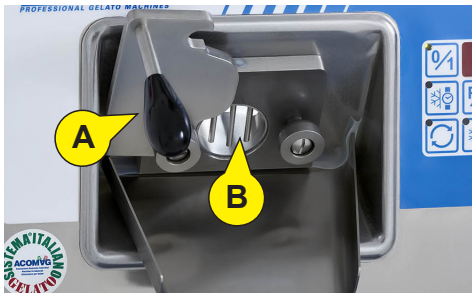
THE MAGNETIC SAFETY SENSOR IN THE COVER MUST NOT BE USED AS A MACHINE STOP CONTROL.

THE MACHINE MUST ONLY BE STOPPED USING THE APPROPRIATE BUTTONS ON THE CONTROL PANEL, NOT BY OPENING THE COVER. (CONSULT SECTION 5.1 “CONTROLS” IN THIS MANUAL).

3.2.2 Safety device of the extraction door chute

The machine has an extraction door which allows the processing cylinder to be sealed. A lever (A) is used to open the door for extracting the processed foodstuffs.

The cylinder extraction door, used to extract the product, is fitted with a fixed grill (B) designed to prevent fingers from being inserted accidentally.



DO NOT INSERT TOOLS (E.G.: TUBE BRUSH FOR CLEANING, ETC.) IN THE GRILL OF THE EXTRACTION DOOR WHEN THE MACHINE IS OPERATING.

TAMPERING WITH THE SAFETY DEVICE AND USE OF THE MACHINE IF IT IS DAMAGED OR MALFUNCTIONING ARE STRICTLY PROHIBITED.

THE MANUFACTURER DECLINES ALL RESPONSIBILITY IN THE EVENT OF TAMPERING WITH SAFETY DEVICES OR OPERATIONS CARRIED OUT IN A WAY THAT DOES NOT COINCIDE WITH WHAT IS SPECIFIED IN THIS MANUAL, SINCE THEY MAY PUT THE HEALTH AND SAFETY OF PERSONNEL AND/OR OBJECTS AT RISK.

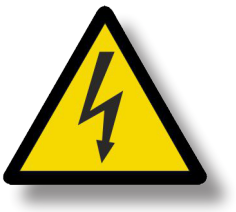
TAMPERING WITH THE SAFETY DEVICE AND USE OF THE MACHINE IF IT IS DAMAGED OR MALFUNCTIONING ARE STRICTLY PROHIBITED.

3.2.3 Safety symbols and stickers

On the machine there are symbols/stickers for highlighting: what you must not do, important information and warnings:

This symbol indicates the presence of an electric shock hazard.

It indicates to the relevant personnel that they risk an electric shock if they do not work in compliance with safety regulations.



3.3 Personal Protective Equipment (PPE)

The employer must inform personnel about the following safety-related issues:

1 Accident risks.

2 Operator safety equipment.

3 General accident-prevention rules envisaged by the regulations in place in the country for which the machine is intended.

The operator must always:

1. Pay maximum attention to all caution or danger symbols/stickers on the machine.
2. Not wear clothing, jewellery or accessories which may become tangled in machine parts.

Personal protective equipment to be used by personnel authorised to use the machine:

3.3.1 Clothing

Operators must wear clothing made of material resistant to the type of product to be processed. The clothing must allow perfect movement for the operations that the operator must perform.



3.3.2 Gloves (hand protection)

Gloves must be suitable for the machine operating conditions and the operator's hands. They must guarantee a secure, rapid grip as well as high performance in resisting the product to be handled. They must guarantee adequate comfort, absorb sweat and protect against heat and cold.



3.3.3 Hair cover

Hair covers must be the correct size and must hold the hair inside. They must be breathable to allow for scalp sweating.



PPE MUST CONFORM TO THE SAFETY REQUIREMENTS OF THE REGULATIONS IN FORCE IN THE COUNTRY WHERE THE MACHINE IS USED.

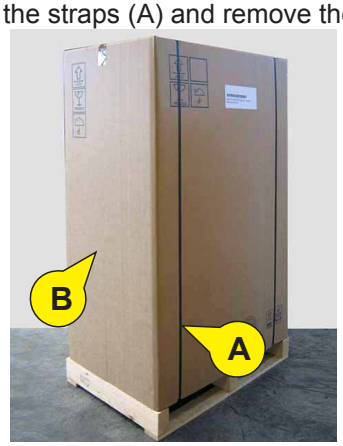
4 INSTALLATION INSTRUCTIONS

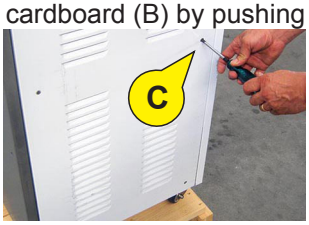
4.1 General requirements

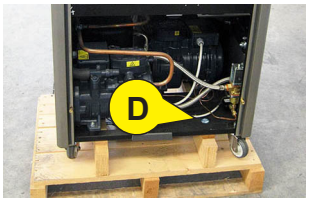
INSTALLATION MUST ONLY BE PERFORMED BY QUALIFIED TECHNICAL PERSONNEL.

Once the package is near to the machine installation location, cut the straps (A) and remove the cardboard (B) by pushing it upwards.

Remove the documents and accessories located on the outside of the machine.







Take care when removing the straps, as they may accidentally hit the operator when cut.

Remove both of the machine side panels by unscrewing the fixing screws (C) then unscrew the bolts (D) which fix the machine frame to the base of the packaging.

Lift the machine off the pallet by acting on the load-bearing parts (P) of the frame, using lifting equipment suitable for the weight of the machine. During lifting pay special attention to the power cable, taking care not to damage it.



DO NOT ATTEMPT TO LIFT THE MACHINE BY HAND.

After positioning the machine in the selected area, put the side panels back on using the screws and dispose of the packaging materials in accordance with the rules in force in the country where the machine will be used.

4.2 Ambient conditions

Ambient conditions required for machine operation:

- Temperature: +2°C to +30°C (35.6°F to 86°F)
- Humidity: 10% - 95% (with no condensation)

THE MACHINE MUST BE POSITIONED IN A LOCATION PROTECTED FROM RAIN AND SUN.

Ambient conditions other than those specified may cause serious damage to the machine and in particular to the electrical equipment and the refrigerating system.

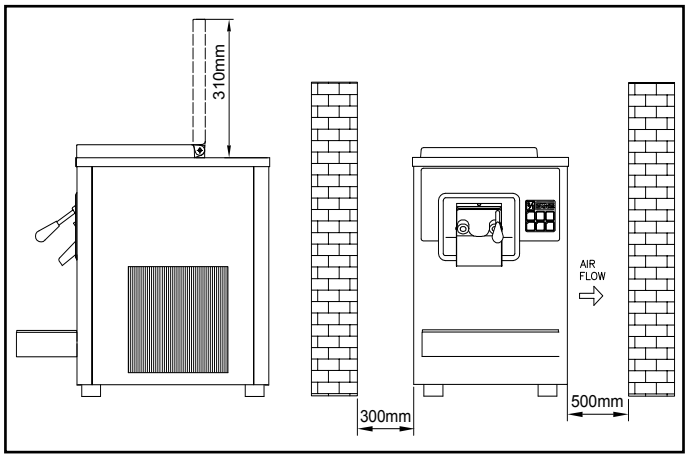
OPERATING THE MACHINE IN AMBIENT CONDITIONS THAT DO NOT CONFORM TO THE INDICATIONS IN THIS MANUAL WILL VOID THE GUARANTEE.

USE OF THE MACHINE IN POTENTIALLY EXPLOSIVE ATMOSPHERES IS STRICTLY PROHIBITED.

4.3 Spaces needed for use of the machine

The machine must be positioned on a solid, level and even floor. It must not be directly exposed to sunlight or near to heat sources.

Keep the machine air inlets clear to allow adequate air circulation around it.

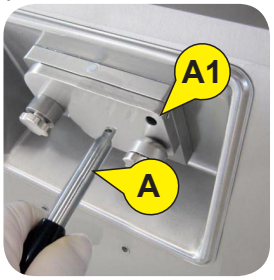


4.4 Installation and assembly sequences of machine components

For safety reasons and to avoid damage during transportation, some machine components are removed from it. Therefore, the machine user must follow these assembly instructions for machine components:

1 Extraction door lever

- Install the opening lever (A) on the extraction door. Place it in the seat (A1) and use the Allen key (B) supplied to tighten the fixing screw while holding the lever in the operating position.





2 Extraction door chute

- Install the extraction door chute below the extraction door using the fixing hole (C) on the front panel.
- Position the chute and tighten the clamp screw (D) below it.





TIGHTEN THE FIXING SCREWS, CHECKING THAT THERE IS NO PLAY IN THE CHUTE.

3. Basin support and mat

- There are two slots (F) in the back of the basin support. Fit them over the clamp screws (G) partly tightened on the front panel. When the basin support is in place, tighten the screws.
- Place the mat (H) supplied on top of the basin support.





4.5 Electricity supply

WORK ON ELECTRICAL CONNECTIONS MUST ONLY BE CARRIED OUT BY QUALIFIED TECHNICAL PERSONNEL.

The machine must be powered at the voltage shown on the data plate at the top of the rear panel. Connect the machine only to a power supply using a suitable earth connection.

The machine is supplied with a power cable to which **a qualified technician** must connect a plug suitable for the technical data (voltage, current) on the data plate.

Connect the machine to a power socket using a suitable earth connection.

THE ELECTRIC SYSTEM THAT WILL POWER THE MACHINE MUST BE DESIGNED IN ACCORDANCE WITH THE REGULATIONS IN FORCE AND INSTALLED BY QUALIFIED, CERTIFIED TECHNICAL PERSONNEL.

THE SOCKET MUST BE CONTROLLED BY A RESIDUAL CURRENT OPERATED CIRCUIT BREAKER, AND MUST HAVE AN EFFECTIVE EARTH CONNECTION.

THE MANUFACTURER DECLINES ALL RESPONSIBILITY FOR ANY DAMAGE CAUSED BY AN UN-SUITABLE ELECTRICITY SUPPLY SYSTEM OR EARTHING.

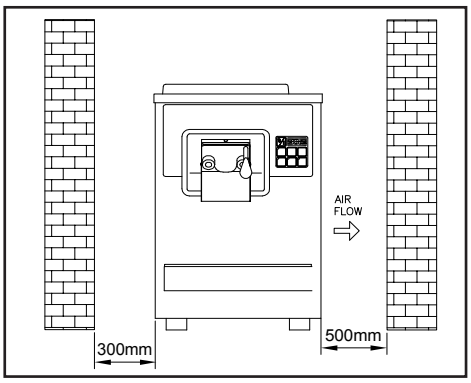
AT THE END OF MACHINE INSTALLATION, QUALIFIED TECHNICAL PERSONNEL MUST CHECK THAT THE MIXER ROTATES IN THE CORRECT DIRECTION, "CLOCKWISE".

THE USE OF EXTENSION LEADS WHICH HAVE A CROSS-SECTION DIFFERENT TO THAT OF THE MACHINE POWER CABLE MAY RESULT IN THE FOLLOWING FAULTS:
1. SLOW MOTOR START WITH TRIPPING OF OVERLOAD SWITCHES
2. MOTOR OVERHEATING WITH A DROP IN POWER
3. FAILURE OF MACHINE SWITCH ON - SWITCH OFF DEVICE

THE MANUFACTURER RECOMMENDS INSTALLATION OF THREE-PHASE MAGNETO-THERMAL OVERLOAD SWITCHES WHICH ALLOW POWER TO BE CUT OFF TO ALL PHASES EVEN IN THE EVENT OF AN OVERLOAD ON ONLY ONE OF THEM. OTHER TYPES OF MAGNETO-THERMAL SWITCHES OR FUSES ONLY CUT THE PHASE WHICH WAS SUBJECT TO OVERLOADING. IF THE VOLTAGE WERE TO FAIL IN ONE OF THE THREE PHASES, THE MACHINE WOULD NOT STOP OPERATING, BUT THE MOTORS WOULD QUICKLY SUFFER IRREPARABLE DAMAGE.

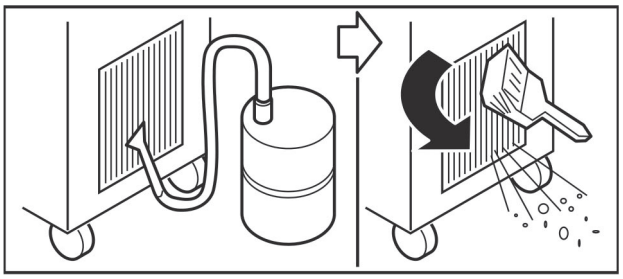
4.6 Air-cooled machine

Air-cooled machines must be installed with a minimum distance from the rear wall of at least **500 mm** to allow free circulation of condensation air.



Every day, clean the area around the machine to prevent foreign bodies (for example: build-up of dust, bits of paper, etc.) from blocking the regular inflow of air. Monthly, thoroughly clean the condenser grille, removing any dust residues, bits of paper, etc., to allow the machine to operate correctly.

Remove dust from the condenser grilles “dry” with a vacuum cleaner and, if necessary, a brush, so that the dust is removed outwards.



DO NOT USE LIQUIDS BECAUSE THEY WOULD FIX THE DUST ON THE CONDENSER.

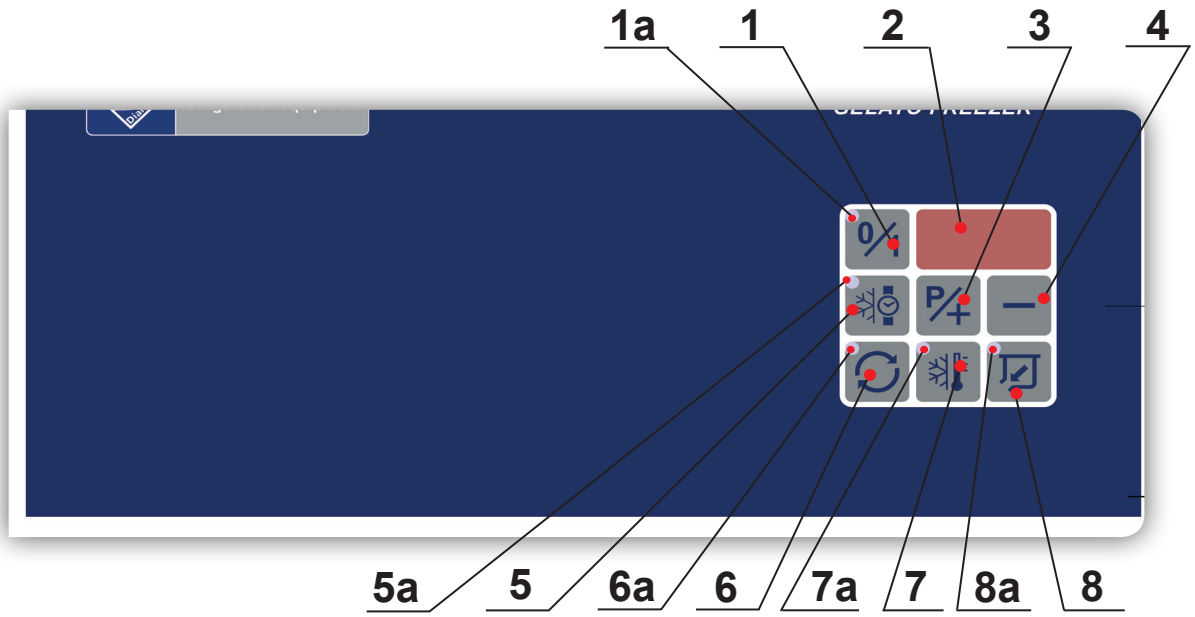
REMOVE DUST FROM THE CONDENSER GRILLES OUTWARDS TO AVOID COMPROMISING THE PERFORMANCE OF THE REFRIGERATING SYSTEM.

INADEQUATE MACHINE VENTILATION COULD COMPROMISE CORRECT OPERATION AND ITS PRODUCTION CAPACITY.

5 MACHINE OPERATION

5.1 Controls

The control panel functions are illustrated below:



1. **ON/OFF button** shows the temperature of the cylinder.	For switching the machine on and off. The digital display (2)
1a. **Power LED** supplied with electricity.	Power ON light. When lit the LED indicates that the machine is
2. Digital display	Displays the machine functions and data set.
3. + Programming/Adjustment button	*Dual function button:* **a)** press the button repeatedly to view the machine programming functions on the digital display (see sect. 5.3 “Programming” in this manual). **b)** increases the value selected in the various programming functions when pressed. .
4. – Adjustment Button	This button is only active during programming functions. Press to reduce the selected value.
5. “TIME-BASED CYCLE” button	Button for starting a machine “time”-based operating cycle. When the cycle is ON the warning light (5a) in the button is lit. When this button is pressed the mixer in the cylinder and the machine cooling system are switched on automatically for a factory set churning time. The time-based operating cycle ends when the churning time set has elapsed. The cooling system switches off automatically whilst the clockwise mixing of the mixer continues to prevent the formation of ice on the sides of the cylinder. Press the button again to deactivate the cycle and stop the machine.
6. Mix button	Switches ON/OFF clockwise rotation of the mixer in the upper tank, in manual mode. When mixing is ON the warning light (6a) is lit.

7. "TEMPERATURE-BASED CYCLE" button Button for starting a machine "temperature"-based operating cycle. When the cycle is ON the warning light (7a) in the button is lit. When this button is pressed the mixer in the cylinder and the machine cooling system are switched on automatically. The temperature-based cycle ends when the product in the cylinder reaches the factory set cooling temperature. The cooling system switches off automatically whilst the clockwise mixing of the mixer continues to prevent the formation of ice on the sides of the cylinder. Press the button again to deactivate the cycle and stop the machine.

8. ***Extraction button*** Starts the counterclockwise rotation of the mixer inside the cylinder to allow the product come out of the extraction door at the end of a cycle.
When extraction is activated the warning lamp (8a) comes on.



DO NOT PRESS THE EXTRACTION BUTTON WHEN THE MIX OR PRODUCT IN THE CYLINDER IS LIQUID, BECAUSE THE HIGH ROTATING SPEED OF THE MIXER (COUNTERCLOCKWISE) WOULD MAKE THE PRODUCT COME OUT OF THE CYLINDER SUDDENLY.

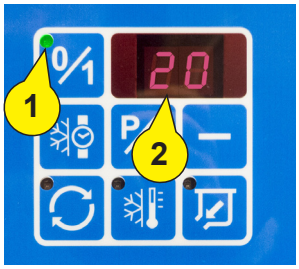
DO NOT PRESS THE EXTRACTION BUTTON AT THE END OF THE GRANITA PRODUCTION CYCLE, BECAUSE THE HIGH ROTATING SPEED OF THE MIXER (COUNTERCLOCKWISE) WOULD MAKE THE PRODUCT COME OUT OF THE CYLINDER SUDDENLY. PRESS THE MIX BUTTON (MIXER CLOCKWISE ROTATION) TO MAKE THE GRANITA COME OUT OF THE MACHINE CYLINDER CORRECTLY AND SAFELY.

5.2 Switching on and starting the machine

EVERY DAY, WHEN YOU SWITCH ON THE MACHINE, CHECK THAT THE SAFETY DEVICES ARE OPERATING CORRECTLY AS DESCRIBED IN DETAIL IN SECTION 7.5 OF THIS MANUAL.

Connect the machine power cable to a socket and check that the power LED (1) is lit. Press the ON/OFF 0/1 button to prepare the machine to operate and the cylinder temperature is shown on the digital display (2).





Possible machine operating modes:

1. **Production with "time"-based operating cycle**, for making gelato and sorbet.
2. **Production with "temperature"-based operating cycle**, for making gelato and sorbet.
3. **Granita production**. Specific program, with a temperature-based operating cycle, for making granita.

Once the operation mode has been selected, and the pasteurised mixture or the pre-packaged food products have been placed inside the cylinder, simply press the relative start button to start the production.

Before starting production, remember to run the machine wash phases as described in section 6, "Washing", of this manual.

Before starting the production carry out the following checks:

- Check that the mixer fixing knob is fully tightened.

- Check that the extraction door is closed.

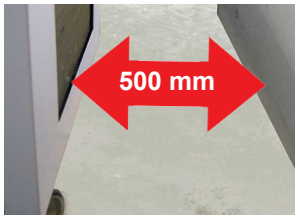




- Pour the pasteurised mix or the ready-packaged foods into the cylinder. The suitable quantity of product which can be processed is indicated in sec. 2.4, "Machine technical data" of this manual.

- For air-cooled machines, check that the machine is positioned with the required space from the rear wall and that there are no foreign bodies obstructing the condenser air flow.





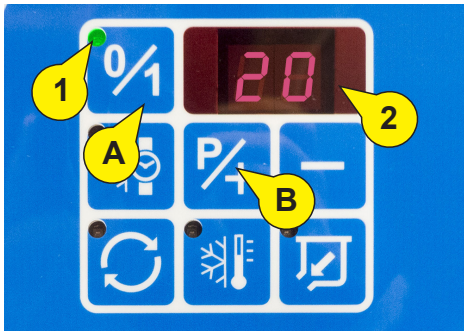
Do not start the machine operating cycle before putting the mix in the cylinder. The mixer must not operate with no product inside it as it will be damaged.

5.3. Programming

DURING ITS FACTORY INSPECTION, THE MACHINE HAS BEEN PROGRAMMED WITH OPTIMAL TIME AND TEMPERATURE PARAMETER VALUES FOR THE OPERATION CYCLES.

DO NOT CHANGE PROGRAMMING UNLESS IT IS STRICTLY NECESSARY.

IF PARAMETER VALUES DO NEED TO BE ALTERED, MAKE ANY NECESSARY MACHINE PROGRAMMING CHANGES BEFORE STARTING PRODUCTION.



- Check that the power LED (1) is on and press the machine ON/OFF 0/1 (A) button.
- The machine prepares itself to operate and subsequently the tank temperature is displayed on the digital display (2).
- Keep the “PROGRAMMING/ADJUSTMENT +” (B) button pressed for a few seconds to access the programming functions.
- The functions are divided into four clearly separate categories and are identified by a flashing code that is displayed in sequence on the machine digital display.

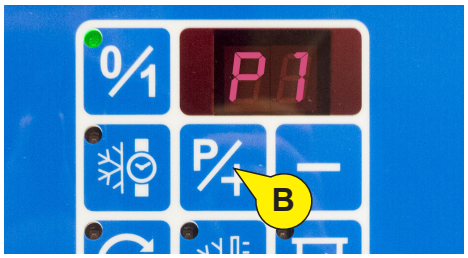
Code	*Function*
P1	Adjusting the temperature-based cycle
P2	Adjusting the time-based cycle
P3	Adjusting the buzzer
P4	Adjusting the granita program

THE SWITCH BETWEEN FUNCTIONS OCCURS AUTOMATICALLY WITH A TIME INTERVAL OF 5 SECONDS. TO ACCESS THE FUNCTION TO ADJUST THE OPERATOR MUST WAIT FOR THE DISPLAY TO SHOW THE CODE ASSOCIATED TO THE DESIRED FUNCTION.

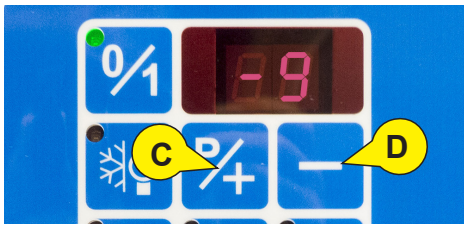
AT THE END OF THE PROGRAMMING CYCLE THE SYSTEM EXITS THE FUNCTIONS AUTOMATICALLY AND THE CYLINDER TEMPERATURE IS SHOWN ON THE DIGITAL DISPLAY.

5.3.1 Adjusting the temperature-based cycle (P1)

- Having pressed the + Programming/Adjustment button (B), the P1 code appears on the digital display.
- A few seconds after the code P1 flashes on the display, a numerical value indicating the cooling temperature set appears on the display.



- Press adjustment buttons (C) and (D) to increase or reduce the cooling temperature value.
- The cooling temperature can be adjusted within a range between -19 °C and +30°C. The factory set value is -9°C (temperature suitable for making gelato and sorbet).



THE COOLING TEMPERATURE MUST BE PROGRAMMED ACCORDING TO THE QUANTITY OF INGREDIENTS THAT PREVENT FREEZING (FOR EXAMPLE: SUGAR OR ALCOHOL) IN THE MIX TO BE PROCESSED.

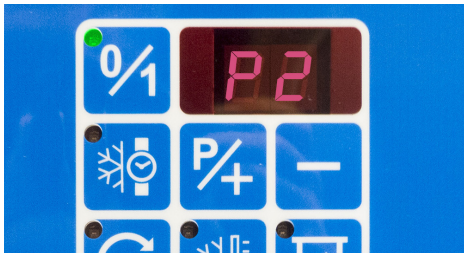
AS A GUIDE, FOR "LEAN" MIXES (WITH ONLY A FEW INGREDIENTS THAT PREVENT FREEZING) A COOLING TEMPERATURE OF -5 TO -6 °C MUST BE SET.

FOR MIXTURES WITH A MEDIUM QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF -7 ÷ -8 °C SHOULD BE SET.

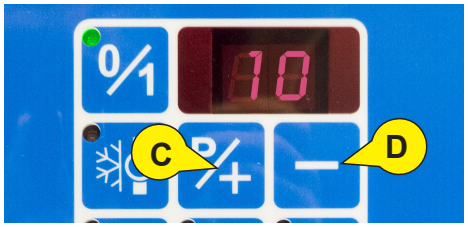
FOR "RICH" MIXTURES WITH A LARGE QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF -9 ÷ -10 °C SHOULD BE SET.

5.3.2 Adjusting the time-based cycle (P2)

- Several seconds after the code P2 flashes on the display, it shows a number value indicating the churning time for the product processed in the cylinder. The churning time corresponds to the length of the time-based cycle, expressed in minutes.

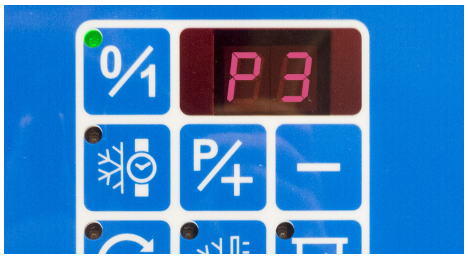


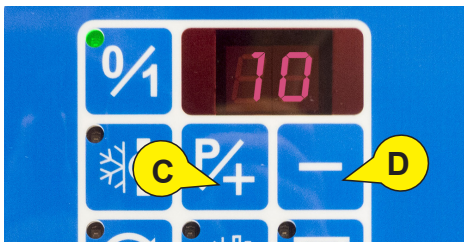
- Press adjustment buttons (C) and (D) to increase or reduce the churning time value.
- The length of the time-based operating cycle can be adjusted within a range between 1 and 30 minutes. The factory set value is 10 minutes.



5.3.3 Adjusting the buzzer (P3)

- When the code P3 flashes on the display, you can modify the duration of the buzzer at the end of the production cycle. The factory set value is 10 seconds.
- Press adjustment buttons (C) and (D) to increase or reduce the length of the buzzer sound, expressed in seconds.
- The length of the buzzer sound can be adjusted within a range between 0 and 30 seconds.





If a time of 0 seconds is entered, the buzzer is switched off.

5.3.4 Adjusting the granita program (P4)

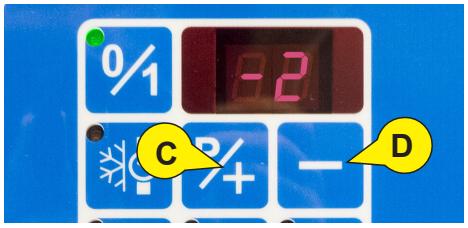
- When code P4 flashes on the digital display, you can set mixer operation with intermittent motion and clockwise rotation, with pause times, expressed in seconds.



For granita production, set the temperature to -2°C in the temperature-based cycle (P1).



- Press the “+ Programming/Adjustment” button (B) for several seconds. A few seconds after the code P1 flashes on the display, a numerical value indicating the cooling temperature appears on the display.
- Press adjustment buttons (C) and (D) to set the value to -2°C.



- Wait a few seconds until code P4 flashes on the display. Two zeroes “□□” appear. Press the adjustment buttons (C) and (D) to set a numerical value corresponding to the mixer operating time.





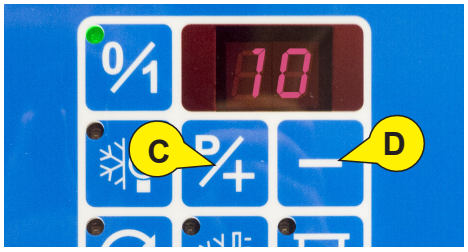


To make granita, we recommend entering a mixer operating time of 15 seconds. The mixer operating time can be adjusted within a range between 0 and 60 seconds.

- Several seconds after entering the operating time, the display shows two zeroes again "□□". Now you can set a numerical value corresponding to the mixer pause time.



- Use the adjustment buttons (C) and (D) to set the mixer pause time.



We recommend entering a mixer pause time of 10 seconds. The mixer pause time can be adjusted within a range between 0 and 60 seconds.

Note: Do not enter pause times greater than 10 to 15 seconds, or ice may form on the cylinder walls.

- Wait for the values to be saved and automatic exit from the programming menu.

Note: Entering numerical values in code P4 gives mixer intermittent operation suitable only for granita recipes and not for making gelato and sorbet.

AT THE END OF GRANITA PRODUCTION, RESET THE VALUES IN CODE "P4", OTHERWISE THE MIXER WILL OPERATE WITH INTERMITTENT MOTION.

5.4 Temperature-based cycle production

- Check that the power LED (A) is lit and press the machine ON/OFF 0/1 button.



Note: You can check and if necessary modify the cooling temperature value, depending on the type of mix and quantities of ingredients that prevent freezing. Follow the instructions in section 5.3.1 of this manual.

THE COOLING TEMPERATURE MUST BE PROGRAMMED ACCORDING TO THE QUANTITY OF ANTI-FREEZE INGREDIENTS (FOR EXAMPLE: SUGAR OR ALCOHOL) IN THE MIXTURE TO BE PROCESSED.

AS A GUIDE, FOR "LEAN" MIXTURES (WITH ONLY A FEW ANTI-FREEZE INGREDIENTS) A COOLING TEMPERATURE OF -5 ÷ -6 °C SHOULD BE SET.

FOR MIXTURES WITH A MEDIUM QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF -7 ÷ -8 °C SHOULD BE SET.

FOR "RICH" MIXTURES WITH A LARGE QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF -9 ÷ -10 °C SHOULD BE SET.

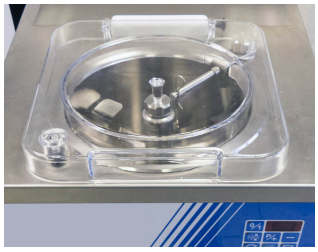
- *Before starting the production check that the extraction door is closed and pour the pasteurised mixture or the pre-packaged food products in the cylinder.*

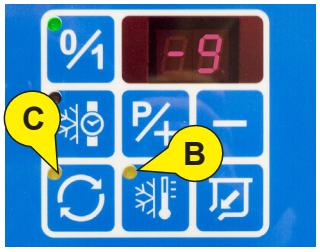




Note: The suitable quantity of product which can be processed is indicated in sec. 2.4, “Machine technical data" of this manual.

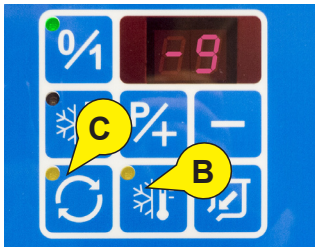
- *Close the cover and start the temperature-based operating cycle by pressing button (B). The mixer in the cylinder and the machine cooling system are automatically switched on simultaneously. The light in the “TEMPERATURE-BASED CYCLE” button (B) and that in the “MIX” button (C) come on.*

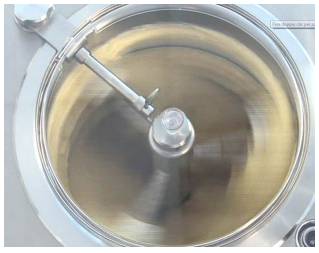




- *The cooling temperature can be adjusted within a range between -19 °C and +30°C. The factory set value is -9°C (temperature suitable for making gelato and sorbet).*

- *At the end of processing, that is to say, when the product cooling temperature has been reached, the operator is alerted by a buzzer. Once the cycle has ended the cooling system switches off automatically whilst the clockwise mixing of the mixer continues to prevent the formation of ice on the sides of the cylinder.*





- *If it is not removed the product remains in the maintaining state (storage) in the cylinder with a factory set temperature delta of 2°C. When the temperature of the product increases inside the cylinder, the cooling system starts automatically to restore the temperature set. The warning lights in the MIX button (C) and “TEMPERATURE-BASED CYCLE” button (B) remain lit to indicate that the cycle is still active.*

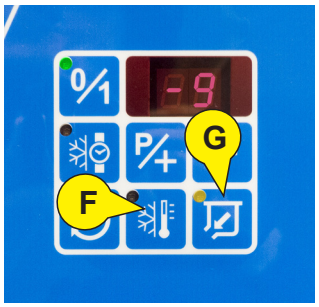
ONCE THE CYCLE HAS ENDED WE RECOMMEND EXTRACTING THE PRODUCT TO ENSURE THAT ITS CONSISTENCY IS NOT CHANGED BY TOO MUCH MIXING.

- *Position a suitable container on the machine basin support and open the extraction door.*



- *Extract the product by pressing the “EXTRACTION” button (G). When extraction is activated the warning lamp comes on.*

- *Use the spatula supplied to help the gelato flow into the tub.*

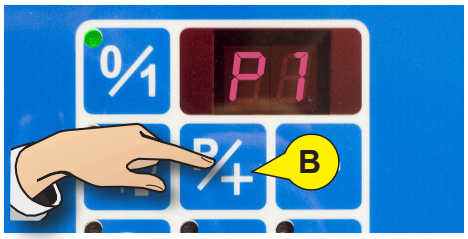


- *To end the extraction and stop the machine press the “TEMPERATURE-BASED CYCLE” button (F). The warning light for the temperature-based cycle will go out.*

5.4.1 Modifying the cooling temperature with the temperature-based cycle started

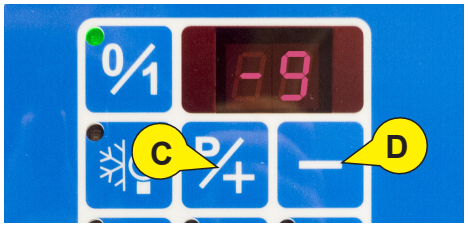
If, during the processing cycle, you want to modify the cooling temperature, this can be done by accessing the programming section. Follow the instructions in section 5.3.1 of this manual.

– Press the + Programming/Adjustment button (B) and wait until the digital display shows code “P1”.



– A few seconds after the code P1 flashes on the display, a numerical value indicating the cooling temperature set appears on the display (e.g.: -9°C).

– Press the adjustment buttons (C) and (D) to set the new cooling temperature for the product processed.



5.5 Time-based cycle production

▪ Check that the power LED (A) is lit and press the machine ON/OFF 0/1 button.



Note: You can check and if necessary modify the churning time value, depending on the quantity and type of mix and the number of consecutive production runs. Follow the instructions in section 5.3.2 of this manual.

- Before starting the production check that the extraction door is closed and pour the pasteurised mixture or the ready-packaged food products into the cylinder.





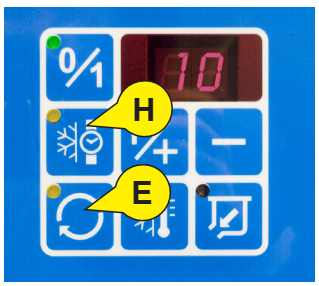
Note: The suitable quantity of product which can be processed is indicated in sec. 2.4, “Machine technical data" of this manual.

- Close the cover and start the time-based operating cycle by pressing button (B). The mixer in the cylinder and the machine cooling system are automatically switched on simultaneously.

- The light in the “TIME-BASED CYCLE” button (H) and that in the “MIX” button (E) come on.

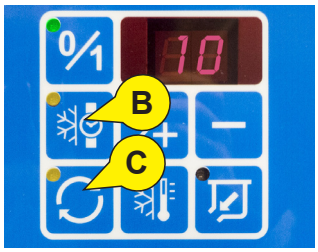
- The length of the time-based operating cycle can be adjusted within a range between 1 and 30 minutes. The factory set value is 10 minutes.





- *At the end of processing, that is to say, when the churning time set has elapsed, the operator is alerted by a buzzer. Once the cycle has ended the cooling system switches off automatically whilst the clockwise mixing of the mixer continues to prevent the formation of ice on the sides of the cylinder.*

- *The warning lights in the MIX button (C) and "TIME-BASED CYCLE" button (B) remain lit to indicate that the cycle is still active.*





ONCE THE CYCLE HAS ENDED WE RECOMMEND EXTRACTING THE PRODUCT TO ENSURE THAT ITS CONSISTENCY IS NOT CHANGED BY TOO MUCH MIXING.

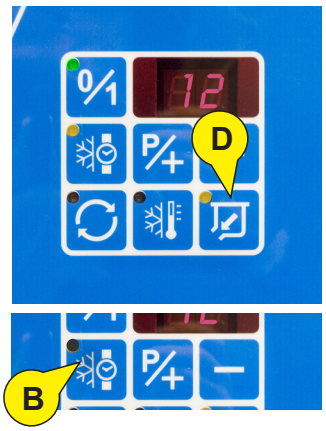
- *Position a suitable container on the machine basin support and open the extraction door.*

- *Extract the processed product (gelato) by pressing the "EXTRACTION" button (D).*

- *When extraction is in progress the warning light is lit.*

- *To end the extraction and stop the machine press the "TIME-BASED CYCLE" button (B). The warning light for the time-based cycle will go out.*

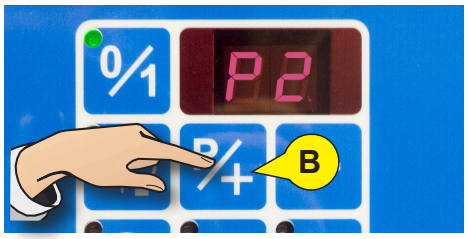




5.5.1 Modifying the churning time with the time-based cycle started

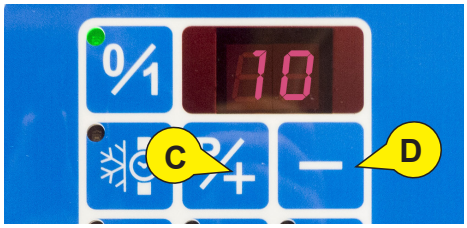
If, during the processing cycle, you want to modify the churning time, this can be done by accessing the programming section. Follow the instructions in section 5.3.2 of this manual.

– Press the + Programming/Adjustment button (B) and wait until the digital display shows code "P2".



– A few seconds after the code P2 flashes on the display, a numerical value indicating the churning time set appears on the display.

– Press the adjustment buttons (C) and (D) to set the new churning time for the product processed.



5.6 Temperature-based cycle granita production

Granita can only be made using a temperature-based cycle.

You can set the mixer to operate with intermittent motion and clockwise rotation, with pause times, expressed in seconds.

THE RECOMMENDED COOLING TEMPERATURE FOR MAKING GRANITA IS -2°C. MODIFY THE COOLING TEMPERATURE SET IN THE MACHINE. FOLLOW THE INSTRUCTIONS IN SECTION 5.3.4 OF THIS MANUAL.

- *Before starting the production check that the extraction door is closed and pour the pasteurised mixture or the ready-packaged food products into the cylinder.*





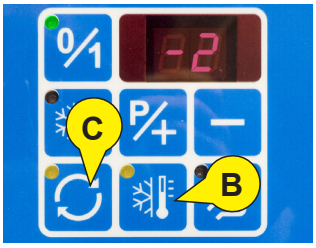
Note: The suitable quantity of product which can be processed is indicated in sec. 2.4, “Machine technical data" of this manual.

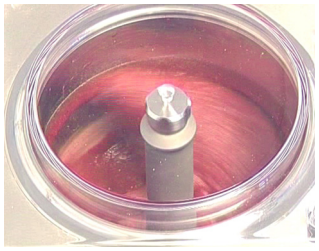
- *Close the cover and start the temperature-based operating cycle by pressing button (B). The mixer in the cylinder and the machine cooling system are automatically switched on simultaneously. The light in the “TEMPERATURE-BASED CYCLE” button (F) and that in the “MIX” button (E) come on.*





- *At the end of processing, the operator is alerted by a buzzer. Once the cycle has ended the cooling system switches off automatically, whilst mixer clockwise intermittent mixing continues to prevent the formation of ice on the cylinder wall.*

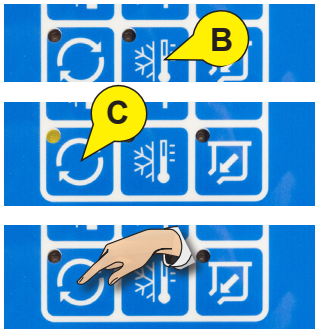




- *If it is not extracted, the product remains in the maintaining state (storage) in the cylinder with a factory set temperature delta of 2°C. When the temperature of the product increases inside the cylinder, the cooling system starts automatically to restore the temperature set. The warning lights in the MIX button (C) and “TEMPERATURE-BASED CYCLE” button (B) remain lit to indicate that the cycle is still active.*

- *Position a suitable container on the machine basin support and open the extraction door. Press the “TEMPERATURE-BASED CYCLE” button (B) to stop the cycle.*





- *Extract the granita by pressing the “MIX” button (C).*

- *To end the extraction press again the “MIX” button (C).*

DO NOT PRESS THE EXTRACTION BUTTON DURING GRANITA PRODUCTION, AS THE HIGH SPEED OF ROTATION OF THE MIXER COULD MAKE THE PRODUCT COME OUT OF THE CYLINDER SUDDENLY.

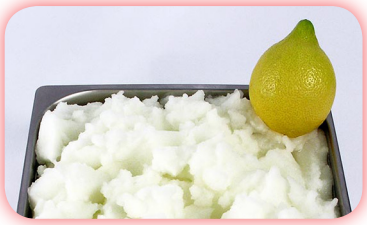
AT THE END OF GRANITA PRODUCTION, RESET THE VALUES IN CODE “P4”, OTHERWISE THE MIXER WILL OPERATE WITH INTERMITTENT MOTION.

6 WASHING

6.1 Rinse or complete wash

When switching from one production cycle to another, a simple rinse or a “complete” wash may be needed, depending on the ingredients or the types of mixes used. The washing methods can be summarised as follows:

1) ***No washing:*** *for recipes using products that are compatible with each other, with no fats and strong flavours* ***THERE IS NO NEED FOR WASHING*** *between one processing cycle and the next.*




NOTE: THE OPERATOR MUST START THE PRODUCTION WITH THE LIGHT COLOURED MIXES AND FINISH WITH THE DARK ONES.

2) ***Rinsing: recipes using products that are compatible with each other, but which have different colours and/or flavours*** *(e.g.: when changing between recipes for sorbets with different flavours and colours), a* ***SIMPLE RINSE*** *of the cylinder and the mixer is needed, for example using a water container or the shower installed on the machine (optional component).*






3) ***Washing: recipes using products that are incompatible with each other****, with fats and strong flavours and colours, etc. (e.g.: ice cream recipes containing eggs etc.),* ***REQUIRE WASHING*** *with water and detergent.*




In the condition in point 3), **COMPLETE WASH**, a wash with water and detergent must be performed, as is precisely described below:

– Check that the extraction door is closed, open the machine cover (A) and pour in a solution of hot water at 50° C and detergent until the cylinder is ¼ full.

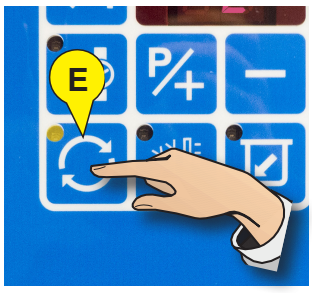




Note: Use a specific food-safe detergent, normally alkaline. The dose must comply with the instructions on the detergent packet.

– Put the cover back on and press the “MIX” button (E), allowing the mixer to operate for several dozen seconds.



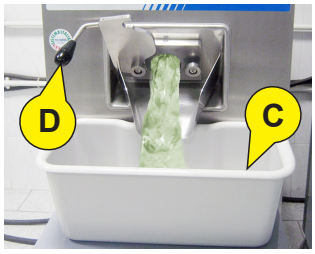


**OPERATING THE MIXER FOR LONGER IS NOT HELPFUL AND IS HARMFUL.
THE LACK OF LUBRICATION (PROVIDED BY THE INGREDIENTS DURING PRODUCTION) COULD CAUSE WEAR ON THE SCRAPERS FITTED TO THE MIXER, AND ON THE CYLINDER.**

– Press the “MIX” button (E) again to stop the mixer and position the water collection container supplied (C), on the machine shelf.

– Gradually open the extraction door with the lever (D) and let the detergent solution flow out.





DO NOT PRESS THE "EXTRACTION" BUTTON (E), BECAUSE THE HIGH SPEED OF THE MIXER, WOULD MAKE THE DETERGENT SOLUTION SUDDENLY COME OUT UPWARDS.

– With the aid of a container of water, rinse the cylinder and mixer and let the water flow out into the collection container.





6.2 End of day washing and sanitising

Sanitising includes all of those activities intended to make the inner surface of the cylinder and the removable components that come into contact with foods hygienic.

Aims of sanitising:

- To remove all traces of product residues
- To reduce the microbial load without leaving chemical residues of the products used on the surface treated.
- To eliminate germs.

Sanitising consists of the following phases:

1. *Rinsing with drinking water*
2. *Washing with detergent*
3. *Thorough rinsing to remove detergent residues*
4. *Disinfection*
5. *Final rinse to remove disinfectant residues*

6.2.1 Sanitising phases at the end of daily work

INTERVAL: at the end of daily processing operations

AUTHORISED OPERATOR: 1 Operator

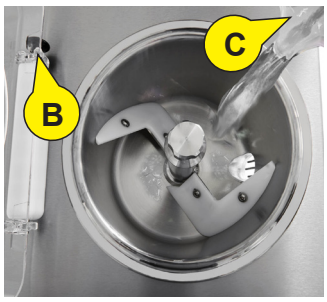
TIME NEEDED: -

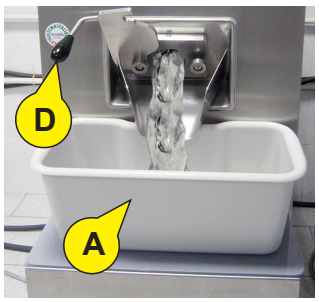
ALWAYS WEAR SUITABLE PROTECTIVE GLOVES

1. Rinse phase:

At the end of each processing cycle the processing cylinder must be thoroughly rinsed with cold water to completely remove product residues.

- *Position the water collection container (A) under the extraction door chute, open the cover (B) and with a container of water (C) thoroughly rinse the cylinder and the mixer inside it.*
- *Gradually open the extraction door (D) using the lever to allow the rinsing water to flow out.*





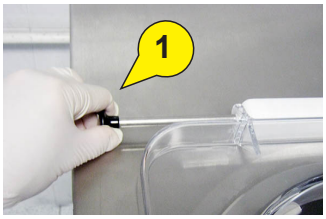
2. Washing with detergent phase:

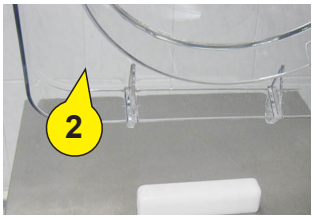
Before thoroughly washing with detergent, remove all components installed on the machine as follows:

a)Removing components:

• Removing the cover

– Pull the fixing pin (1) out of the block horizontally and remove the cover (2).





• Removing the mixer

– Unscrew the fixing knob (4), grip the mixer component drive and pull the mixer (5) out vertically.

– Remove the gasket (6) from the fixing knob (4) using a non-metallic pointed tool, taking care not to damage the knob seat.



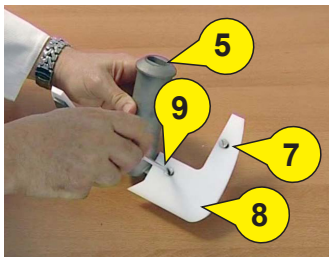


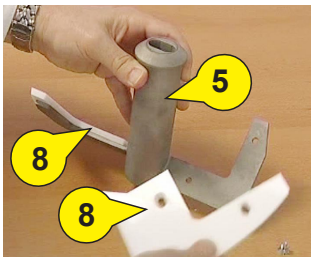


• Removing the mixer's paddle scrapers

– Remove the fixing screws (7) of the paddle scrapers (8) on the mixer (5) with a suitable tool (9) (hex socket screwdriver).

– Remove the 2 paddle scrapers (8) from the mixer (5).



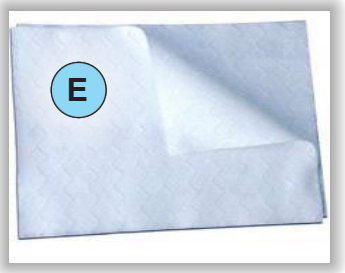


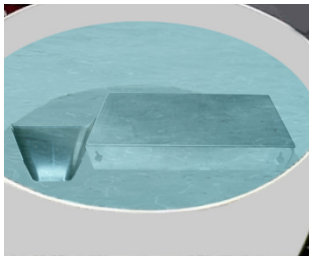
b) Washing with detergent:

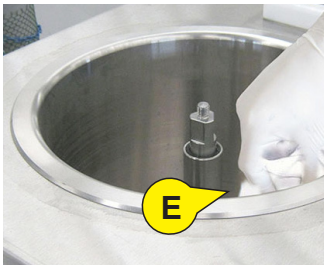
For washing, use a specific food-safe detergent, normally alkaline.

- *Wash all of the components removed with a disposable cloth (E) in a suitable container using a detergent solution at 50°C.*

- *Carry out the same washing operation, with a disposable cloth (E), on the inner surface of the cylinder and thoroughly clean the cylinder outlet using the tube brush supplied (F).*





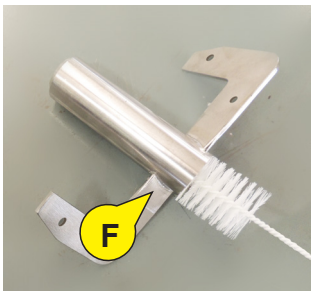




DANGER OF INJURY CAUSED BY MOVING ROTATING PARTS. ALWAYS CLEAN THE CYLINDER OUTLET USING THE TUBE BRUSH SUPPLIED WITH THE MACHINE.

You must also:

- *Thoroughly clean the inside of the mixer component drive using the tube brush supplied (F).*





- *Remove product residues from the mixer's scrapers using the tube brush supplied (F) or a suitable brush.*

- *Thoroughly wash and degrease with a disposable cloth (E) soaked in detergent the gasket (11) of the mixer fixing knob.*





Notes: Do not remove the extraction door chute before rinsing the cylinder, since the chute allows the outflow of rinsing water to be guided.

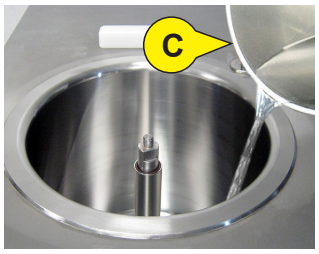
Do not remove the machine basin support, since it supports the rinsing water collecting basin.

3. Rinsing phase to remove detergent:

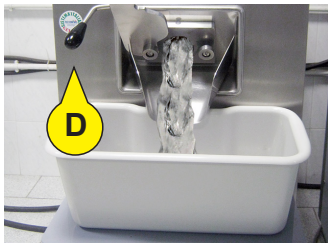
After washing with detergent, a thorough rinse of the processing cylinder with cold water is needed to completely remove any detergent residues still present in it.

- *Position the special water collecting basin (A) under the product extraction door chute and use a container of water (C) or the shower (optional) to rinse the cylinder.*





- *Gradually open the extraction door (D) using the lever to allow the rinsing water to flow out.*
- *Use cold water to rinse all components previously removed and washed separately.*





You can now remove the chute from the extraction door and the basin support so that they can be washed with detergent, as follows:

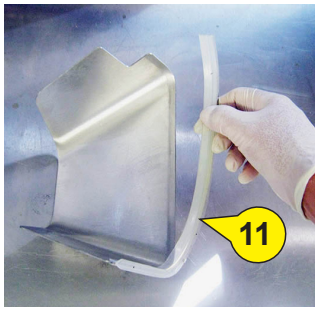
• Removing the extraction door chute

- *Unscrew the clamp screw (9) under the chute (10) and remove it. .*



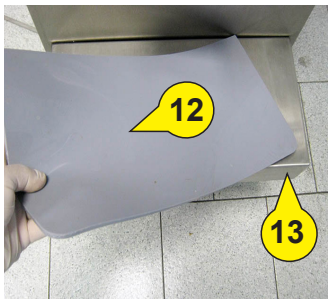
- *Remove the gasket (11) of the chute (10) by pulling it out of its seat.*



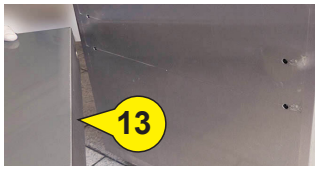


• Removing the mat and basin support

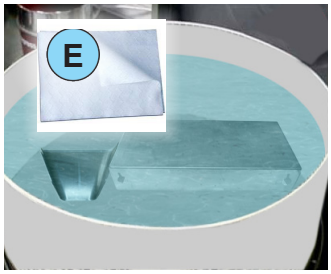
- *Remove the mat (12) located on top of the basin support (14), then remove the basin support (13) by undoing the 2 fixing screws (19) underneath it.*







- *Wash all of the aforementioned components with a disposable cloth (E) in a suitable container using a detergent solution at 50°C, then rinse them in cold water. Always wear suitable protective gloves.*



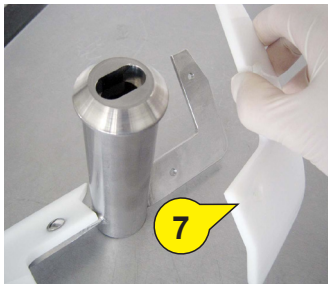


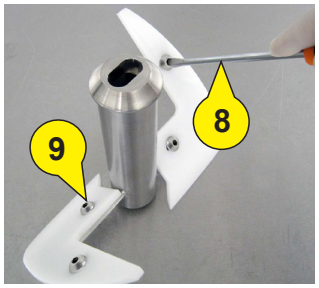
c) Refitting the components:

After washing, re-fit all of the machine components as described below:

• Re-fitting the mixer scrapers

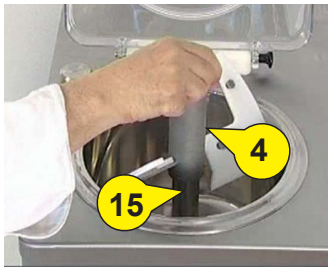
- *Position the paddle scrapers (7) on the mixer and use a suitable tool (hex socket screwdriver) (8) to partially tighten the fixing screws (9), so that the position of the paddles inside the cylinder can be adjusted afterwards.*

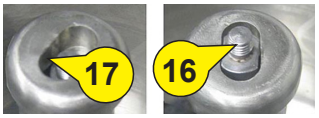




• Re-fitting the mixer in the cylinder

- *Fit the mixer (4) on the motor-driven shaft (15) at the centre of the cylinder. Slowly turn the mixer component drive so that the pin (16), which is part of the shaft structure, engages in the slot (17) made in the mixer component drive.*

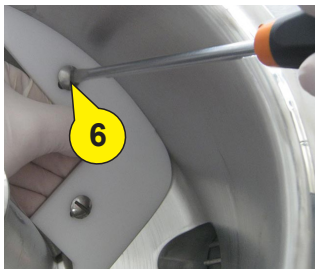




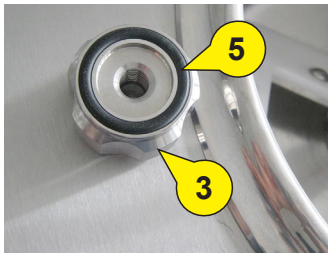


- *Manually push the paddle scrapers (7) towards the cylinder wall, so that they come into contact with the surface.*
- *Then tighten the paddle scraper fixing screws (6) using a suitable tool (hex socket screwdriver). Consult section 5.7, "Adjusting the mixer paddle scrapers" of this manual.*





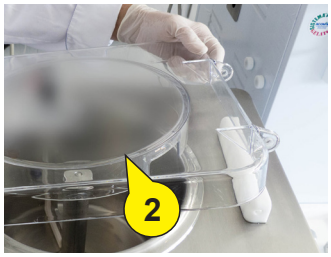
- *Before screwing the fixing knob (3) onto the motor driven shaft (15), check that the gasket (5) is correctly inserted in its seat. If it is broken, worn or swollen, substitute it. Tighten the mixer knob (3).*

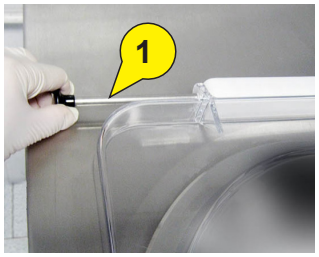




• Re-fitting the cover

- *Place the cover (2) over the machine cylinder and line up the holes in the cover with the through hole in the block.*
- *Insert the fixing pin (1) to secure the cover to the machine.*
- *Check that the fixing pin (1) is fully inserted in the holes in the cover and the block.*

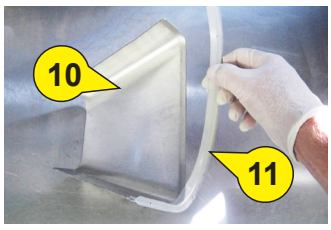


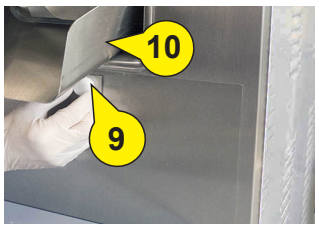


INCORRECT INSTALLATION OR CONTACT FAILURE OF THE MAGNET FITTED ON THE COVER ACTIVATES A MACHINE ALARM (□□), PREVENTING IT FROM STARTING.

• **Re-fitting the extraction door chute**

- *Insert the chute gasket (11) in its seat.*
- *Position the chute (10) below the extraction door and secure it by tightening the clamp screw (9) to the front panel.*





TIGHTEN THE FIXING SCREWS, CHECKING THAT THERE IS NO PLAY IN THE CHUTE.

THE INCORRECT INSTALLATION OR CONTACT FAILURE OF THE MAGNET ON THE COVER ACTIVATES A MACHINE ALARM, PREVENTING IT FROM STARTING.

• **Re-fitting the basin support and mat**

- *Fit the two slots in the basin support over the clamp screws (14) partly tightened on the front panel. When the basin support (13) is in place, tighten the screws.*
- *Place the mat (12) on the basin support (13).*







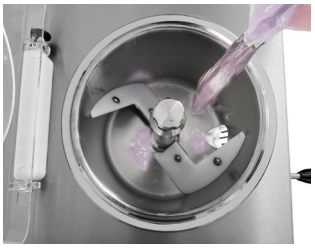
4. Disinfection phase:

After re-fitting all of the components in the machine, carry out the disinfection phase.

For the disinfection phase, purchase a food-safe chemical disinfectant. The dose used should comply with the instructions on the label, including the contact times.

- *Check that the extraction door is closed, open the machine cover and pour in a solution of hot water at 50° C and disinfectant until the cylinder is ¾ full.*
- *Close the cover and press the “MIX" button, leaving the mixer running for 5 minutes.*
- *Press the “MIX” button again to stop the mixer and position the water collection container supplied (A), on the machine basin support.*
- *Gradually open the extraction door (D) with the lever and let the disinfectant solution flow out.*











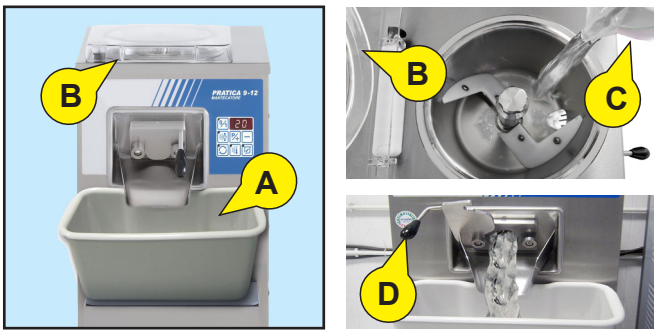
DO NOT PRESS THE "EXTRACTION" BUTTON (E), BECAUSE THE HIGH SPEED OF THE MIXER, WOULD MAKE THE DISINFECTANT SOLUTION SUDDENLY COME OUT UPWARDS.

Note: After the disinfection step do not touch the disinfected parts and do not dry them with cloths or paper.

5. Rinse to remove disinfectant phase:

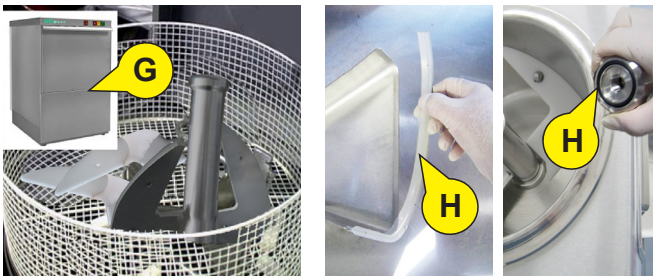
Follow the instructions on the disinfectant packaging and if necessary thoroughly rinse the machine to completely remove disinfectant residues.

- *Position the special water collecting basin (A) under the product extraction door chute, open the cover (B) and use a container of water (C) or the shower (optional) to rinse the cylinder.*
- *Gradually open the extraction door (D) using the lever to allow the rinsing water to flow out.*



Alternatively, all components removed from the machine may be washed and disinfected using an industrial dishwasher.

- *Place all removable components and parts in the dishwasher (G), removing any gaskets (H), then wash them.*

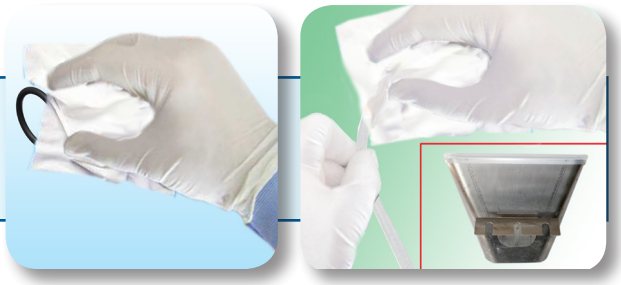


DO NOT PUT GASKETS IN THE INDUSTRIAL DISHWASHER, AS THE HIGH TEMPERATURES COULD DEFORM THEM, MAKING THEM UNUSABLE.

DO NOT USE WATER JETS, AS THEY MAY DAMAGE COMPONENTS INSIDE THE MACHINE.

DO NOT USE ANY KIND OF SOLVENT, SUCH AS SPIRIT, BENZINE OR THINNER TO CLEAN ANY OF THE MACHINE SURFACES.

FOR CORRECT GASKET CLEANING, USE A DISPOSABLE CLOTH AND A DETERGENT FOR ITEMS AND MACHINES USED FOR FOOD PREPARATION.



CLEAN THE MACHINE OUTER PANELS WITH SOFT CLOTHS MOISTENED WITH DETERGENT FOR FOOD-SAFE MACHINES.

7 ROUTINE MAINTENANCE

7.1 Type of checks and interval between them

Regular checks of the operation of the parts of the machine most subject to stresses and wear can prevent faults and help to maintain maximum productivity levels, guaranteeing lasting constant operation.

7.2 Maintenance work

Maintenance is the set of organised operations which must be carried out on machine parts in a regular, systematic way.

Routine maintenance:

1) checking the integrity of wear parts, such as scrapers and gaskets.

2) checking that the machine reaches and maintains the programmed temperatures without difficulty.

3) checking that the machine does not make any unusual noises.

4) keeping outer panels and the area near to and under the machine clean. Dust, scraps of paper or other small objects may get into the equipment through the air inlets and/or block the regular inflow of air to the condenser, quickly compromising correct machine operation.

7.3 Maintenance intervals and time needed

The interval calculated for each piece of maintenance work and the time needed to do the work are approximate and allow the creation of a maintenance programme.

Correct machine operation can only be guaranteed by methodical, regular maintenance.

The table below shows the type of work involved in routine maintenance and the intervals between jobs:

When?	Where?	How?
Every 500 hours or quarterly	Mixer paddle scrapers	Replace
Every 500 hours or quarterly	Gasket of the fixing knob and on the extraction door chute	Replace
Daily (at machine switch on)	Safety devices installed	Check that they work with the procedures described in section 7.5
Yearly	All internal machine parts	They must be checked and tested by a qualified technician

7.4 Maintenance sheets

Substituting the paddle scrapers installed on the mixer — S01

CHECKING INTERVAL: 500 hours or quarterly

AUTHORISED OPERATOR: 1 Operator

TIME NEEDED: 15 minutes

TOOL: Flat-tip screwdriver

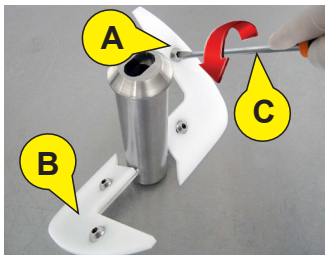
Optimum scraping of the cylinder allows good machine performance and product quality.

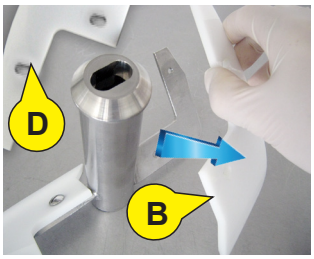
Substitute the mixer scrapers when they show signs of wear which are obvious when looking at their scraping profiles and also indicated by the formation of streaks of product residue on the surface of the cylinder.

The model's mixer is fitted with 2 paddle scrapers made of food-safe plastic.

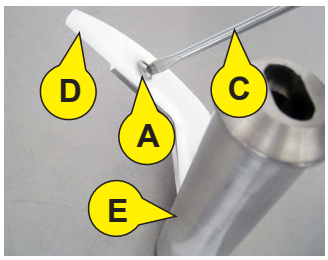
Substitute as follows:

- Remove the fixing screws (A) of the paddle scrapers (B) on the mixer using a suitable tool (hex socket screwdriver) (C).
- Remove the paddle scrapers (B) from the mixer and replace them with the new ones (D).





- Position the new paddle scrapers (D) on the mixer (E) and use a flat-tip screwdriver (C) to partially tighten the fixing screws (A) of the paddle scrapers.
- Fit the mixer (E) on the motor-driven shaft (F) at the centre of the cylinder.
- Slowly turn the mixer component drive so that the pin (G), which is part of the shaft structure, engages in the slot (H) in the mixer component drive.

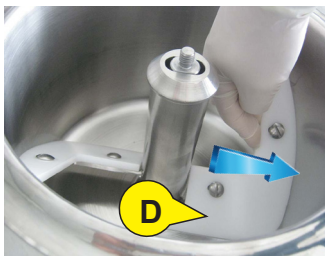


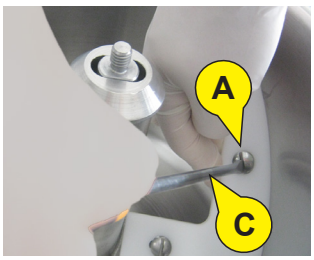






- Manually push the new paddle scrapers (D) towards the cylinder wall, so that they come into contact with the surface.
- Then tighten the fixing screws (A) of the paddle scrapers with a flat-tip screwdriver (C). See the 5.8, ”Adjusting the mixer paddle scrapers” section, of this manual.





Replacing the gaskets

S02

CHECKING INTERVAL: 500 hours or quarterly

AUTHORISED OPERATOR: 1 Operator

TIME NEEDED: 5 minutes

TOOL: Non-metallic pointed tool

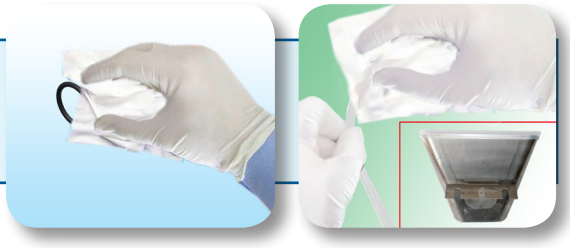
- Regularly check the integrity of the gaskets and substitute them if they are broken, worn or swollen.

- Only use original gaskets, made of food-safe rubber.

- The machine is supplied with a full set of spare gaskets.

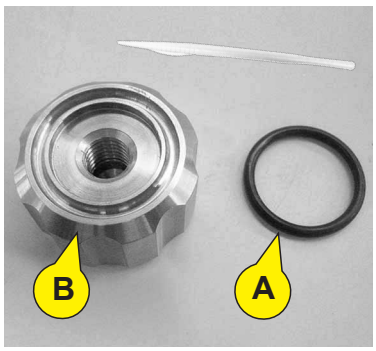
DO NOT PUT GASKETS IN THE INDUSTRIAL DISHWASHER, AS THE HIGH TEMPERATURES COULD DEFORM THEM, MAKING THEM UNUSABLE.

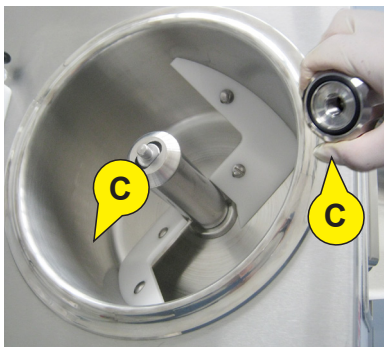
FOR CORRECT GASKET CLEANING, USE A DISPOSABLE CLOTH AND A DETERGENT FOR ITEMS AND MACHINES USED FOR FOOD PREPARATION.



Fixing knob gasket

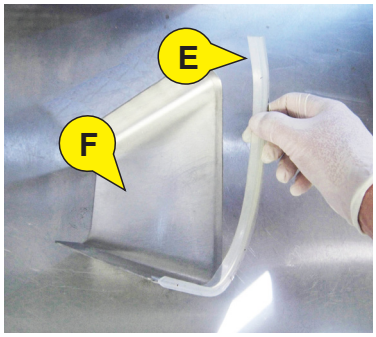
- Remove the worn gasket (A) from the fixing knob (B) using a non-metallic pointed tool, taking care not to scratch the knob seat.
- Remove all product residues from the seat and fit the new gasket (C) **without lubricating it**.





Extraction door chute gasket

- Remove the worn gasket (E) from the extraction door chute (F) by pulling it from the metal seat.
- Replace it with a new one (G)





7.5 Checks on safety devices

Safety devices

CHECKING INTERVAL: DAILY (AT MACHINE SWITCH ON)

AUTHORISED OPERATOR: 1 Operator

TIME NEEDED: 5 minutes

TOOL: -

DO NOT USE THE MACHINE IF ONE OR MORE SAFETY DEVICES MALFUNCTION OR ARE DAMAGED!

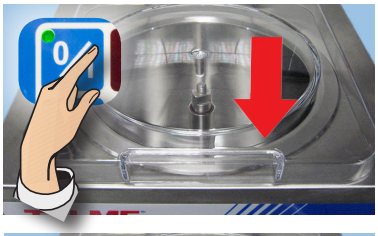
7.5.1 Checking the safety device installed on the cover

Checking procedure:

Phase 1

With the machine empty remove the mixer from the cylinder, close the cover and start the machine by pressing the “on/off 0/1” button. Then press the “MIX” button (A) and check that the motor-driven shaft starts up.









Phase 2

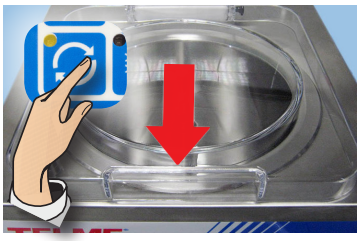
Open the cover. If the safety device is operating correctly, the shaft will stop moving and the digital display will show an alarm message: “□□”.

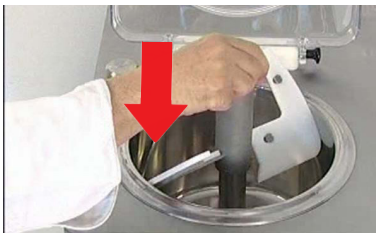




Phase 3

Close the cover again and press the MIX button (A) to stop the motor-driven shaft. Open the cover again and install the mixer in the cylinder, so that the machine is ready for use.





8 TROUBLESHOOTING

Most faults and problems during machine operation are promptly automatically indicated by the machine.



ALARMS STOP THE MACHINE, WITH AN EMERGENCY STOP MESSAGE DISPLAYED ON THE CONTROL PANEL. TO RESTART THE MACHINE, YOU MUST ELIMINATE THE CAUSE OF THE EMERGENCY.

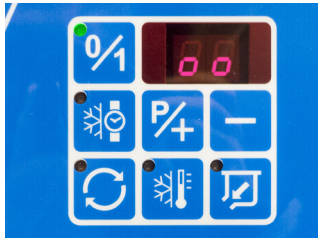
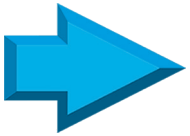
People involved in troubleshooting:

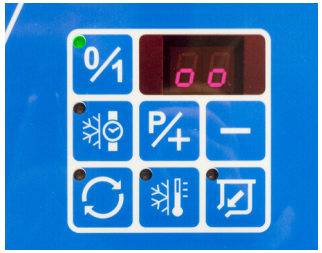
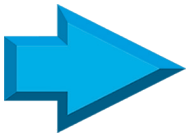
- **Operator:** person trained in the ordinary operation of the machine who performs initial fault-finding and if possible, by following the instructions in Chapter 8 (Routine maintenance), removes the causes of the fault and restores correct machine operation.

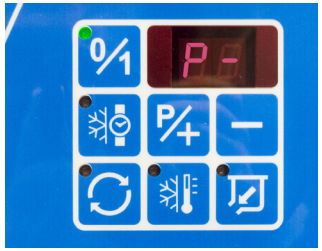
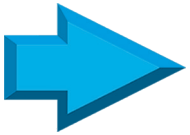
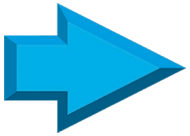
- **Technical assistance service:** qualified technician, called to work on the machine after a request for help, as specified in sec. 1.5.1 of this manual.

8.1 General alarm indications displayed on the control panel – causes and solutions

This section shows the machine alarms, which can be viewed on the digital display, together with possible causes and solutions.

FAULT/ PROBLEM	INSTRUCTIONS FOR THE OPERATOR	POSSIBLE CAUSES	SOLUTIONS
! General alarm warning "□□": 		• The cover on top of the cylinder is not closed correctly or tends to open. The product lifts the cover because of an excessive quantity or an excessive increase in volume. • The magnet and/or the magnetic sensor in the cover are damaged and/or faulty. • Pressure increase in the machine refrigeration system. The refrigeration system safety pressure switch tripped because the maximum pressure allowed was exceeded. •	♦ *Use lower quantities of product. The suitable quantity of product which can be processed is indicated in sec. 2.4 "Machine technical data".* ♦ *Contact the Technical Assistance Service which will correctly re-fit or substitute the door magnet or magnetic contact.* ***A)*** For water-cooled machines: ♦ *Check that the water tap is open and water flows in correctly, as indicated in sec. 2.4 "Machine technical data".* ♦ *Check that the mains water flow rate, temperature and pressure conform to the indications in sec. 2.4 "Machine technical data".* ♦ *Check that there are no narrowings in the water in/out tubes. Remove any narrowing found.* ***B)*** For air-cooled machines: ♦ *Check for obstructions in front of the air condenser grilles. If there are obstructions present, they must be removed. Check that the machine is positioned at the correct distance from the walls, as indicated in the manual. If it is not, reposition it in compliance with the distances indicated in sec. 4.3 "Spaces needed for use of the machine".* **If the problem cannot be solved, contact the Technical Assistance Service.**

FAULT/ PROBLEM	INSTRUCTIONS FOR THE OPERATOR	POSSIBLE CAUSES	SOLUTIONS
! General alarm warning "□□": 		• A fuse designed to protect the auxiliary electrical system has blown.	♦ *Contact the Technical Assistance Service which will identify and eliminate the cause of the overload and will substitute the blown fuse with another having the same specifications and level of protection.*
		• Current overload in the compressor electrical circuit. The electric protection device for the refrigerating system compressor tripped.	♦ *Switch off the machine, wait a few minutes, then switch it on again. If the fault persists or is repeated, contact the Technical Assistance Service.* **Note: In some cases you may need to wait for up to 30 minutes for the thermal protection devices to cool down.**
		• No voltage in a phase of the power circuit. In these conditions the compressor generates an electric overload on the other phases, tripping its electric protection device.	♦ *Switch off the machine and contact the Technical Assistance Service.* **THE OTHER PHASES COULD BE LIVE. THE MACHINE MOTORS WILL BE DAMAGED IF THEY OPERATE WITH ONE OF THE PHASES NOT POWERED.**
		• Mechanical overloading of the mixer motor. The electric protection device for the machine motor tripped.	♦ *Check that the product in the cylinder is not excessively solid as to cause mechanical stress to the mixer motor. Switch off the machine, wait a few minutes, then switch it on again. If the fault persists or is repeated, contact the Technical Assistance Service.* **Note: In some cases you may need to wait for up to 30 minutes for the thermal protection devices to cool down.**

FAULT/ PROBLEM	INSTRUCTIONS FOR THE OPERATOR	POSSIBLE CAUSES	SOLUTIONS
! Alarm warning "P-" 		• The cylinder temperature probe signals a temperature higher than the safety limits. Faulty temperature probe (interrupted or out of tolerance) and/or related wiring damaged.	♦ *Contact the Technical Assistance Service.*
! Alarm warning "PE" 		• The cylinder temperature probe signals a temperature lower than the safety limits. Faulty temperature probe (interrupted or out of tolerance) and/or related wiring damaged. • The control circuits do not allow disconnection of power for the compressor (which keeps operating). The related control contactor is probably jammed. • There is little product in the cylinder with the cooling phase active (ice forming on the walls of the cylinder).	♦ *Contact the Technical Assistance Service.* ♦ *Contact the Technical Assistance Service.* ♦ *Switch off the machine, wait until normal operating conditions are restored and add the quantity of product which can be processed, indicated in sec. 2.4 "Machine technical data".*

8.2 Troubleshooting – flowchart

In abnormal conditions the machine may malfunction, as specified below:

MACHINE DOES NOT OPERATE OR OPERATION IS INTERRUPTED THE MAIN SWITCH IS IN THE ON POSITION (1), THE POWER WARNING LIGHT DOES NOT SWITCH ON.



The plug is not inserted in the socket correctly.
YES → *Insert it correctly.*
NO

The socket is faulty.
YES → *Have it substituted by a qualified technician.*
NO

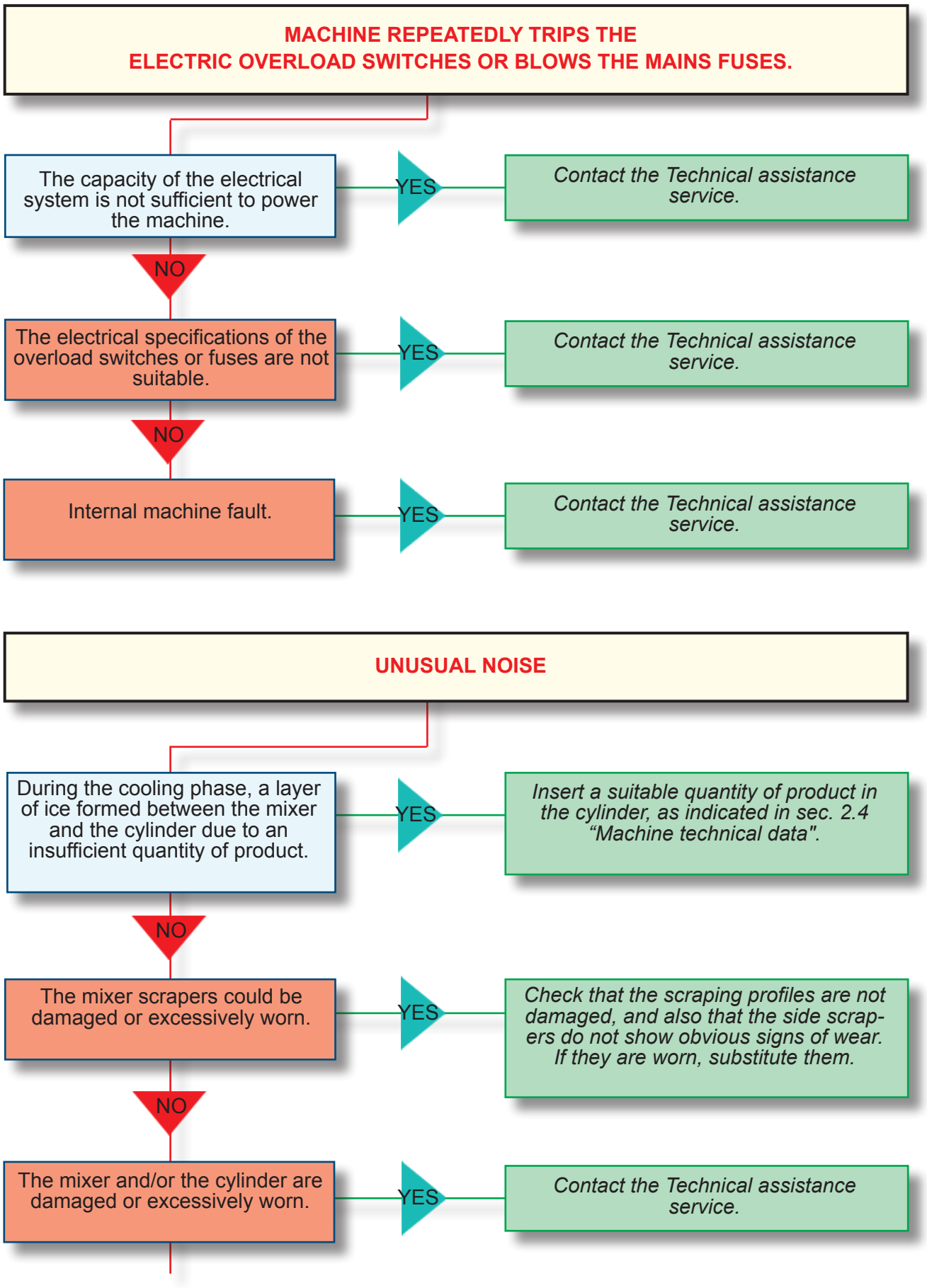
No electric power in the network or in the socket.
YES → *Check that the disconnecting switches, all-pole (phase & neutral) isolating switches and residual current operated circuit breakers (cut-outs) on the electrical system, upstream of the socket, are closed.*
If not, before closing them, make sure that no one is carrying out electrical repairs.
NO

A fuse designed to protect the auxiliary electrical system has blown.
YES → *Identify and eliminate the cause of the overload and substitute the blown fuse with another having the same specifications and level of protection.*
Contact the technical assistance service.
NO

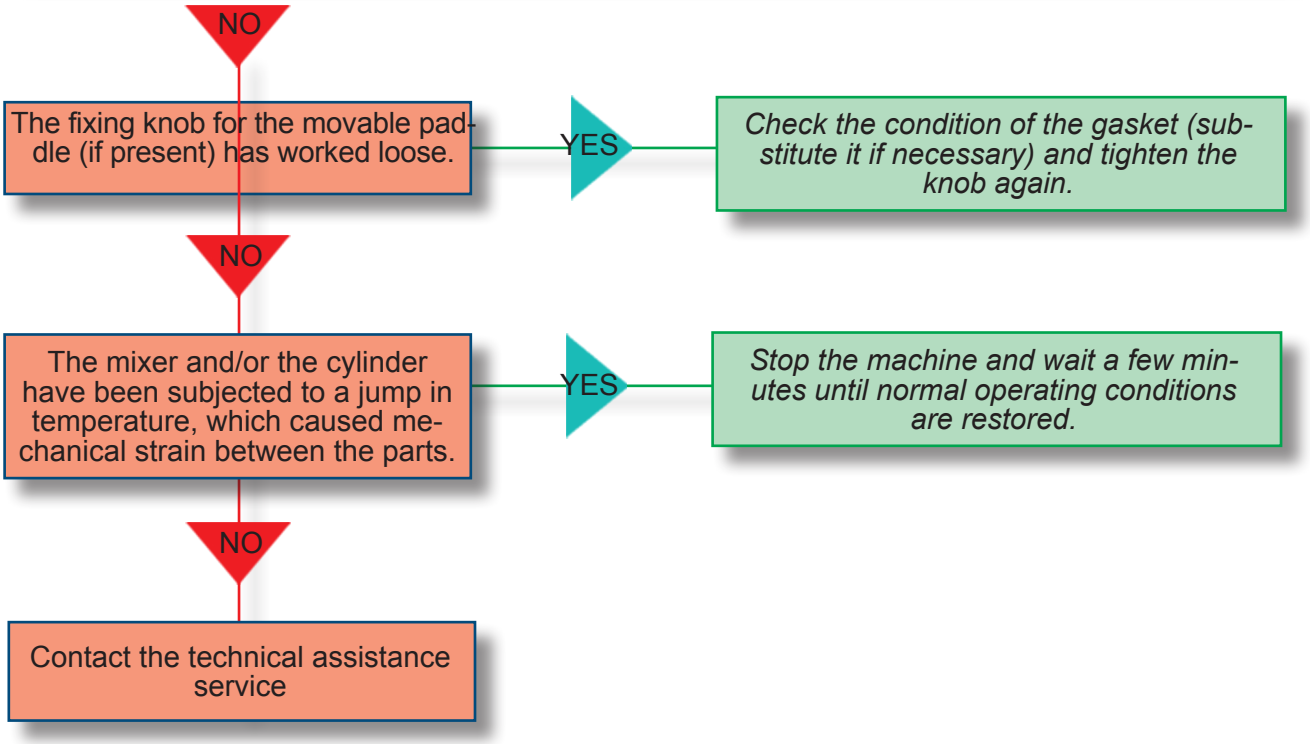
The power cable is damaged.
YES → *Cut off the electricity supply to the socket by opening the disconnecting switch upstream of it, then disconnect the plug and contact the Technical assistance services.*
NO

DO NOT TOUCH DAMAGED ELECTRIC CABLES BEFORE CUTTING OFF THE ELECTRICITY SUPPLY!

Contact the technical assistance service

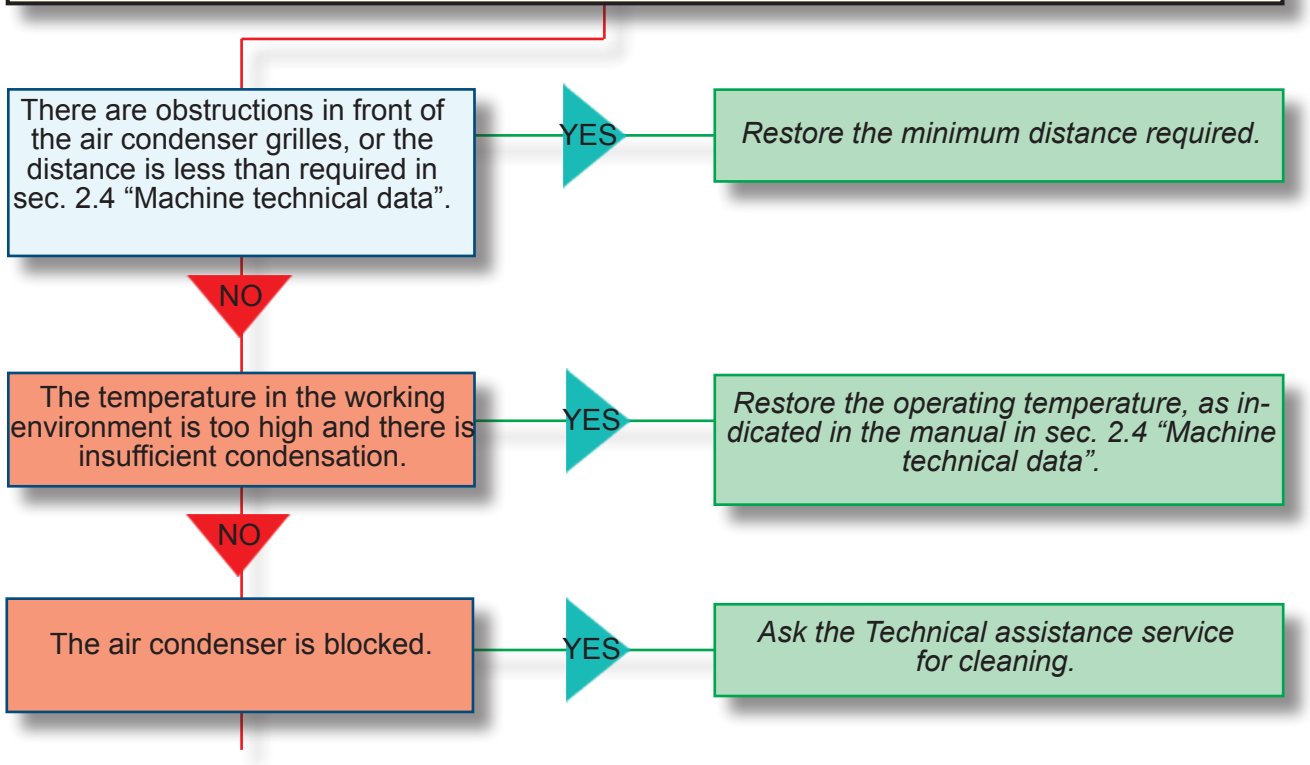

MACHINE REPEATEDLY TRIPS THE
ELECTRIC OVERLOAD SWITCHES OR BLOWS THE MAINS FUSES.
The capacity of the electrical system is not sufficient to power the machine.
YES
Contact the Technical assistance service.
NO
The electrical specifications of the overload switches or fuses are not suitable.
YES
Contact the Technical assistance service.
NO
Internal machine fault.
YES
Contact the Technical assistance service.
UNUSUAL NOISE
During the cooling phase, a layer of ice formed between the mixer and the cylinder due to an insufficient quantity of product.
YES
Insert a suitable quantity of product in the cylinder, as indicated in sec. 2.4 “Machine technical data".
NO
The mixer scrapers could be damaged or excessively worn.
YES
Check that the scraping profiles are not damaged, and also that the side scrapers do not show obvious signs of wear. If they are worn, substitute them.
NO
The mixer and/or the cylinder are damaged or excessively worn.
YES
Contact the Technical assistance service.

UNUSUAL NOISE



COOLING IS INSUFFICIENT OR SWITCHES OFF IN A FAULTY WAY

AIR-cooled machine



COOLING IS INSUFFICIENT OR SWITCHES OFF IN A FAULTY WAY
AIR-cooled machine

NO

The air condenser fan is faulty. — YES → *Contact the Technical assistance service.*

NO

Fault in the refrigerating system or control electronics — YES → *Contact the Technical assistance service.*

NO

Contact the technical assistance service

COOLING IS INSUFFICIENT OR SWITCHES OFF IN A FAULTY WAY
WATER-cooled machine

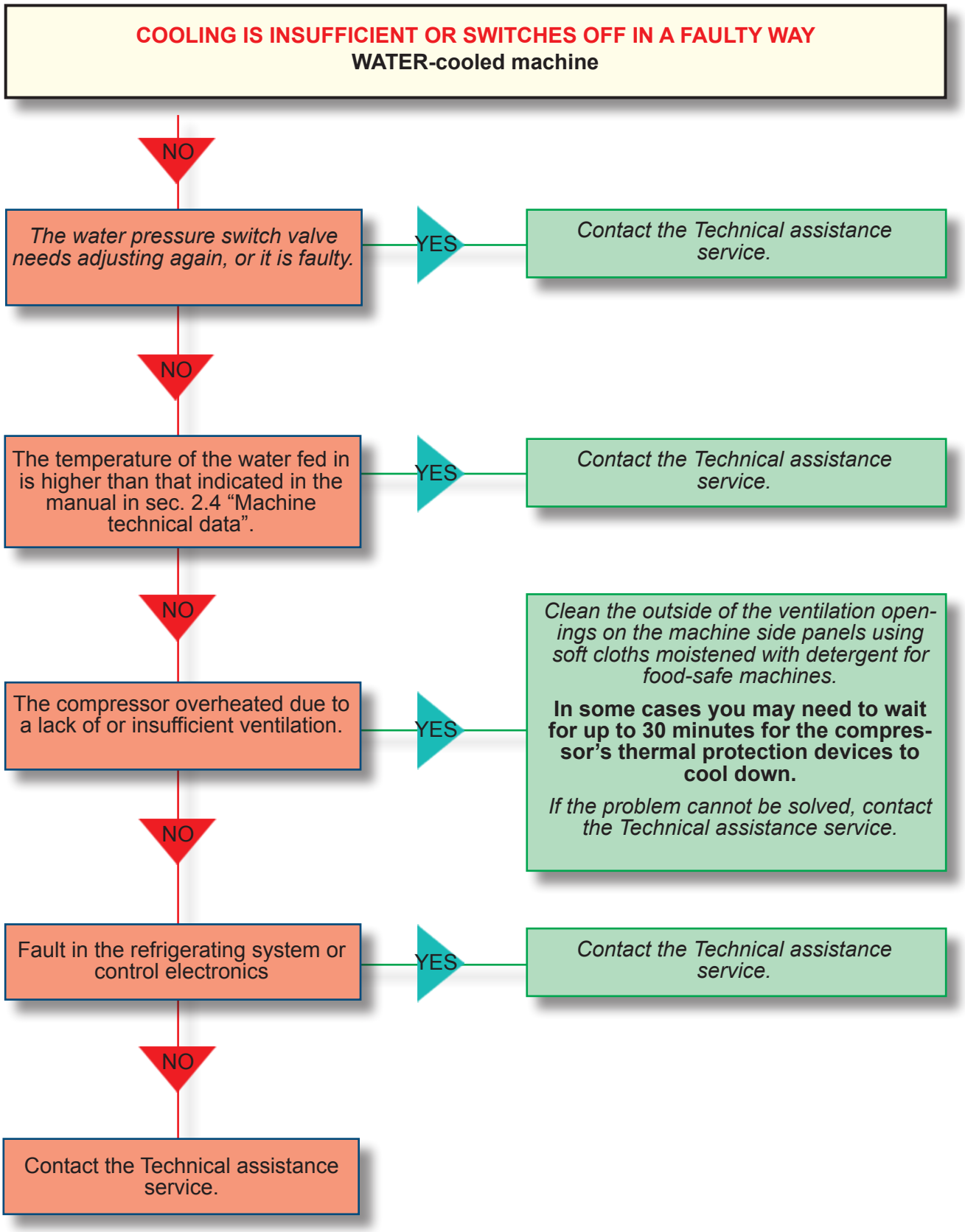
The condenser water tap(s) are partly or completely closed. — YES → *Open the tap(s).*

NO

There are narrowings in the water connecting pipes. — YES → *Remove any flattening and avoid tight bends in the water connecting pipes.*

NO

The flow of condenser water is interrupted or insufficient. — YES → *Check and restore correct water consumption, as indicated in the manual in sec. 2.4 “Machine technical data”.*


COOLING IS INSUFFICIENT OR SWITCHES OFF IN A FAULTY WAY
WATER-cooled machine
NO
The water pressure switch valve needs adjusting again, or it is faulty.
YES
Contact the Technical assistance service.
NO
The temperature of the water fed in is higher than that indicated in the manual in sec. 2.4 “Machine technical data”.
YES
Contact the Technical assistance service.
NO
The compressor overheated due to a lack of or insufficient ventilation.
YES
Clean the outside of the ventilation openings on the machine side panels using soft cloths moistened with detergent for food-safe machines.
In some cases you may need to wait for up to 30 minutes for the compressor’s thermal protection devices to cool down.
If the problem cannot be solved, contact the Technical assistance service.
NO
Fault in the refrigerating system or control electronics
YES
Contact the Technical assistance service.
NO
Contact the Technical assistance service.

9 INACTIVITY

9.1 Keeping the machine efficient if it remains inactive

If the machine will not be used for a lengthy period, follow these instructions:

- **Sanitise the machine as described in sec. 6.1.**
- **Switch off the machine using the I/O - ON/OFF button, power down at the mains master switch and take the plug out of the socket.**

If the machine that will be inactive has a water-cooled condenser, close the Water In tap and discharge the water pressure in the delivery tube by unscrewing the end connector. Remove both the delivery tube and the drainage tube and empty the water from them. Before using again after a long period of inactivity, check the connector gaskets for damage, substituting them if necessary.

BEFORE STORING A MACHINE THAT HAS A WATER-COOLED CONDENSER IN ENVIRONMENTS WITH TEMPERATURES BELOW 0°C, COMPLETELY EMPTY THE WATER FROM THE MACHINE COOLING SYSTEM, AS IT COULD FREEZE INSIDE IT, CAUSING VERY SERIOUS DAMAGE.

If a machine with an air-cooled condenser has been inactive, before switching it on remove dust from the condenser grilles "dry" with a vacuum cleaner and, if necessary, a brush, so that the dust is removed outwards.

DO NOT USE LIQUIDS BECAUSE THEY WOULD FIX THE DUST ON THE CONDENSER.

REMOVE DUST FROM THE CONDENSER GRILLES OUTWARDS TO AVOID COMPROMISING THE PERFORMANCE OF THE REFRIGERATING SYSTEM.

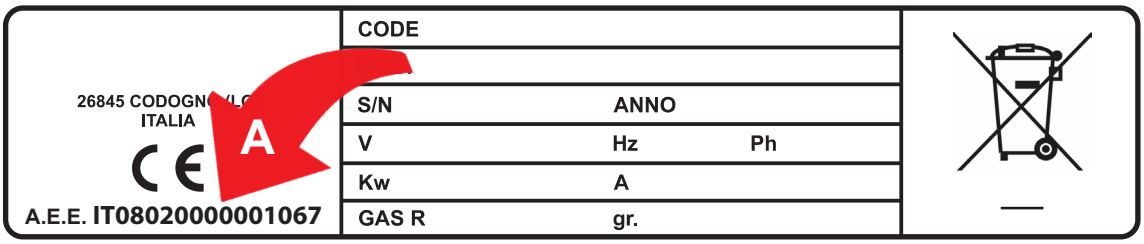
10 DECOMMISSIONING THE MACHINE

10.1 Description of method of disposal

The lifetime of the machine estimated by the manufacturer is 20,000 hours (10 years) of operation under normal operating conditions, described in this operating manual. At the end of its lifetime the machine must be disposed of in accordance with the regulations in force in the country where it was used, concerning the disposal of waste electrical and electronic equipment.

WHEN DISPOSING OF THE MACHINE ALWAYS COMPLY WITH THE REGULATIONS IN FORCE IN THE COUNTRY WHERE IT WAS USED.

TO DISPOSE OF THE MACHINE IN ITALY, CONTACT THE "REMEDIA" CONSORTIUM, QUOTING THE NUMBER (A) ON THE MACHINE IDENTIFICATION PLATE.



CONTACT "REMEDIA":

VIA MESSINA, 38 - 20154 MILANO (ITALY) Tel. +39 02-34594611, Fax +39 02-34594626, e-mail:info@consorzioremedia.it

INFORMATION FOR USERS

In accordance with Directives 2011/65/EU and 2012/19/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) and waste electrical and electronic equipment (WEEE), we hereby inform you that:

"the crossed bin symbol on the device or on its packaging indicates that, at the end of its life, the product must be disposed of separately from other waste".

Separate collection of this equipment when it has reached the end of its life is organised and managed by the manufacturer.
Users who want to dispose of this equipment should contact the manufacturer and follow the instructions for separate collection of the device at the end of its life.

To dispose of the machine, users must comply with the regulations on waste electrical and electronic equipment (WEEE) in force in the country of use.

Adequate separate collection for the future use of the equipment assigned for recycling, treatment and environmentally compatible disposal helps to prevent possible negative effects on the environment and on human health, and promotes recycling and/or reuse of the materials of which the equipment is composed.
Illegal disposal of the product by the owner shall be subject to the administrative sanctions provided for under the regulations in force.

DIAMOND EUROPE



Notes:



Notes:


Kökény
Tejbegríz
Black & White (Oreo)
Made in Italy
Cseresznye