

TELME®
PROFESSIONAL GELATO MACHINES

TELME®
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Operating and maintenance manual
CREMAGEL 5 - CREMAGEL 10



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. TELME S.p.A. 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 TELME S.p.A. 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.

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Dichiarazione CE di conformità

(Direttiva Macchine 2006/42/CE Allegato II, n.1 A)



Via Sandro Pertini, 10 - Zona Industriale
26845 Codogno (LO) ITALIA
Tel. +39(0)377/466650-60
Fax +39(0)377/466690

La TELME è autorizzata a costituire il fascicolo tecnico pertinente,
via Sandro Pertini, 10 – Zona industriale, 26845 Codogno (LO) ITALIA.

Con la presente si dichiara che

Tipo di macchina
Nome del modello
Anno di produzione
Numero di serie

Macchina combinata
Cremagel

È CONFORME

alle disposizioni applicabili della direttiva macchine 2006/42/CE.

La macchina è anche conforme a tutte le disposizioni applicabili delle seguenti Direttive CE:

2006/95/CE

Reg. CE n. 1935/2004

2004/108/CE

2011/65/UE

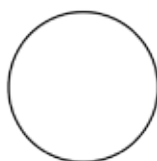
Risparmio energetico;

Materiali a contatto con prodotti alimentari;

Compatibilità elettromagnetica;

RoHS 2 Restrizione all'uso di sostanze pericolose.

Codogno (Lodi), Italia, li



Legale rappresentante
L. V. Bartyan

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”**.



The “BURN HAZARD” symbol is used to indicate that failure to comply with the safety regulations described in this manual could result in “Injury to machine users in the event of contact with hot surfaces”.





1.3 Testing, guarantee and liability

Testing

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

Guarantee

TELME 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 TELME 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 manufacturer'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

TELME 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.

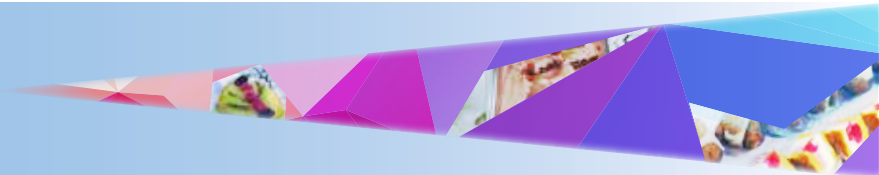
It also lists all procedures useful for dealing with emergencies which may arise during use of the machine as described by the manufacturer and those which are reasonably foreseeable.

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 TELME Spa to apply such changes to a machine previously supplied, nor to consider it and the related manual lacking and inadequate.

TELME Spa 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:

TELME Spa

Via S. Pertini , 10 – 26845 Codogno (LO) – Italy

Tel.: +39.0377.466.650 – Fax: +39.0377.466.690

E-mail: telme@telme.it – Website: www.telme.it

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.telme.it>

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 TELME website: <http://www.telme.it>

1. On the website's homepage menu click on "TELME DEALERS" (A).
2. The system displays the up-to-date list of dealers.



1.5.3 Downloading the technical manual

Hard copy technical manuals are replaced by "PDF" files which can be downloaded directly from this address: <http://manuali.telme.it> or from: <http://www.telme.it> under "TECHNICAL MANUALS" at the bottom of the homepage.

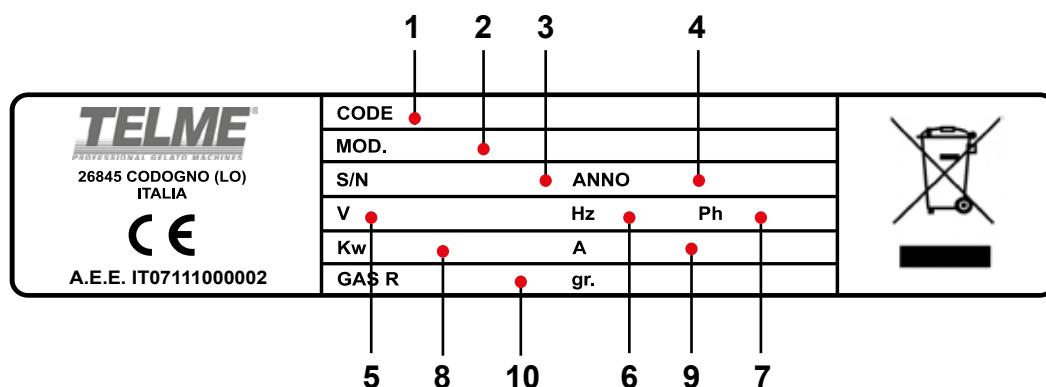


A new window is opened, containing step by step instructions for registering and then for downloading the "TECHNICAL MANUAL".



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.

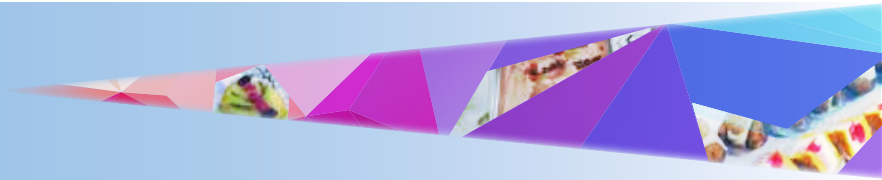


1. Machine code;
2. Model – type of machine;
3. Machine serial number;
4. Date of production (Year);
5. Electric power supply voltage;
6. Electric power supply frequency;
7. Number of phases;
8. Max. power;
9. Max. current drawn;
10. Type and quantity of refrigerant gas.

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 combined machines “CREMAGEL 5 and CREMAGEL 10” have been designed to:

1. mix and heat ingredients or pre-packaged food products placed inside the machine cylinder.
2. cool and store the ingredients processed needed to prepare creams and pastry products.
3. chilling and freezing the ingredients processed, to obtain a creamy gelato, a sorbet or a slush.

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

The “CREMAGEL 5 and CREMAGEL 10” machines have 4 specific programs described below:

1. **CREAM CYCLE**, used to prepare creams, pastry products and gelato mixtures.
2. **HEATING CYCLE**, used to prepare products that must be processed hot.
3. **COMBINED CYCLE**, for hot preparation: pasteurises the mixture and freezes it to turn it into gelato.
4. **COOLING CYCLE**, for cold preparation: cools the mixture and freezes it to turn it into gelato.



THE MACHINES CANNOT BE USED FOR OTHER PURPOSES WITHOUT PERMISSION FROM TELME S.P.A. WHICH DECLINES RESPONSIBILITY FOR DIRECT OR INDIRECT DAMAGE DERIVING FROM 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. When preparing gelato, 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. When preparing gelato, 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 press the extraction button when the mixture or product inside 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).
4. Do not press the extraction button at the end of the slush production cycle, because the high rotating speed of the mixer (counterclockwise) would make the product come out of the cylinder suddenly. Press the stir button (mixer clockwise rotation) to make the slush come out correctly from the machine cylinder. (Consult section 5.1 “Controls” in this manual).
5. At the end of the gelato preparation 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.
6. During the “heating” phase (of the “COMBINED” cycle or the “CREAM” cycle), do not lift the machine cover without heat protection gloves.



7. During the heating phase (of the "COMBINED" cycle or the "CREAM" cycle) do not accidentally open the dispensing spout with improper movements and/or positions. The high temperature reached (99°C) could cause serious burns to the operator. Use suitable gloves that protect against heat and/or use suitable protective clothing.
8. When extracting "HOT" products, do not press the "STIR" and "EXTRACTION" buttons if the product processed is liquid. Use suitable gloves that protect against heat and/or use suitable protective clothing.

1.8 Information for personnel authorised to use the machine

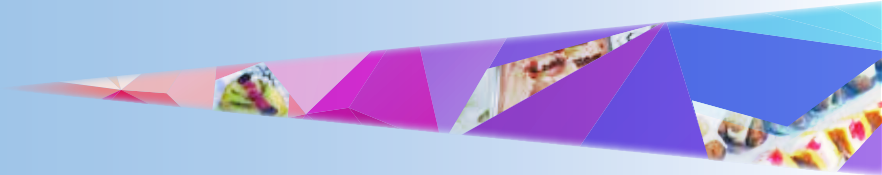
This manual contains the information needed by authorised personnel to correctly use the machine.

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
- Do not turn over
- Protect from rain
- No stacking
- Protect from heat sources
- Fragile



1.9.1 Transportation, lifting and handling



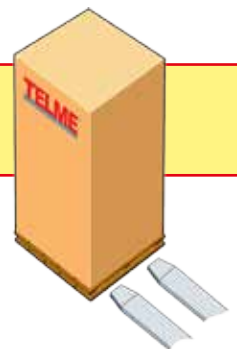
THE PACKAGE MUST ONLY BE HANDLED BY QUALIFIED TECHNICAL PERSONNEL.

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

“CREMAGEL 5 and CREMAGEL 10” are combined machines designed to prepare all kinds of pastry cream as well as gelato, sorbets and slush.

The mixtures or pre-packaged food products are 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".

The “CREMAGEL 5 and CREMAGEL 10” models can mix, heat/pasteurise, cool and store the ingredients to product creams and pastry products. Moreover they can mix, chill and freeze the ingredients processed, to obtain a creamy gelato, a sorbet or a slush.

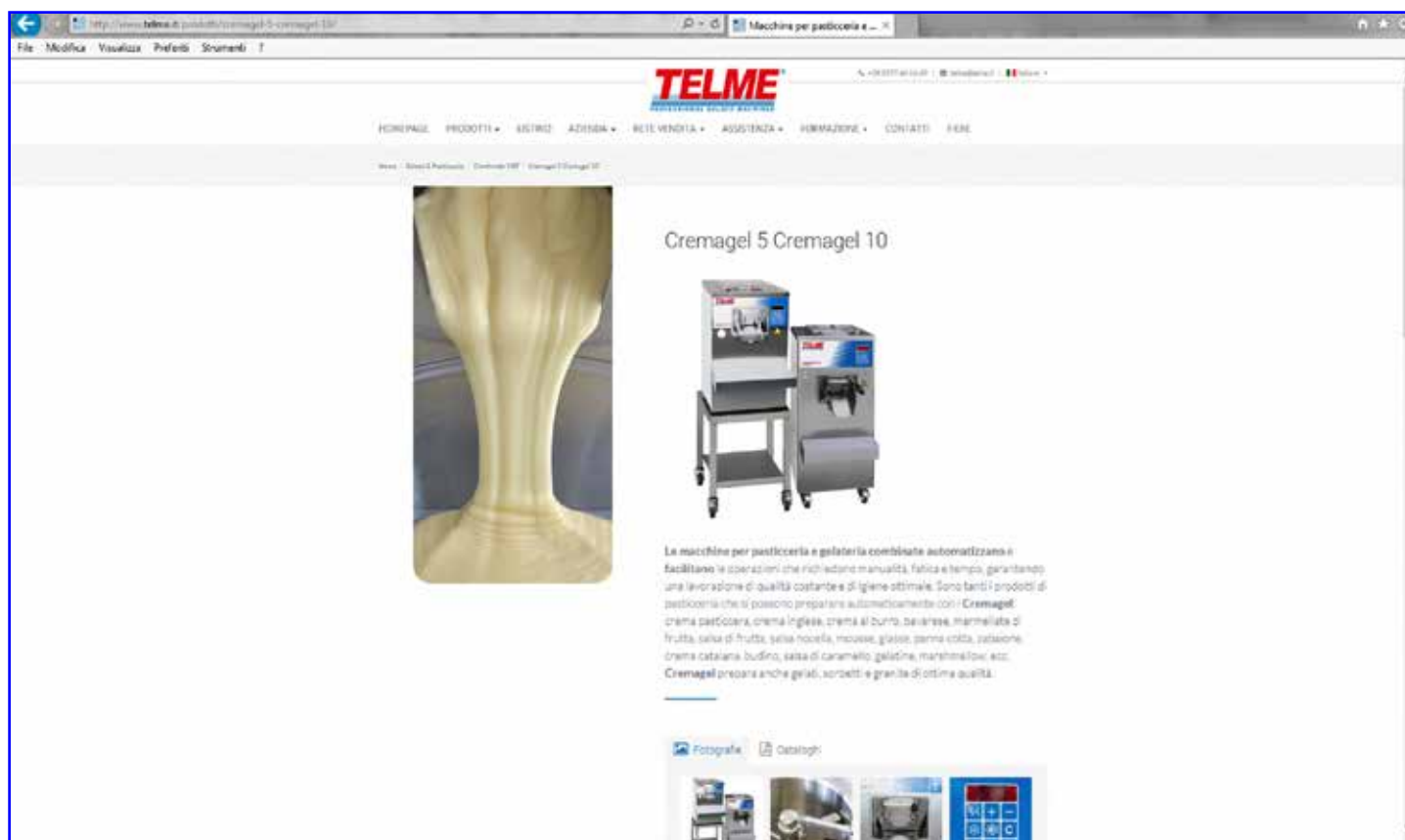
The machines use 4 specific programs:

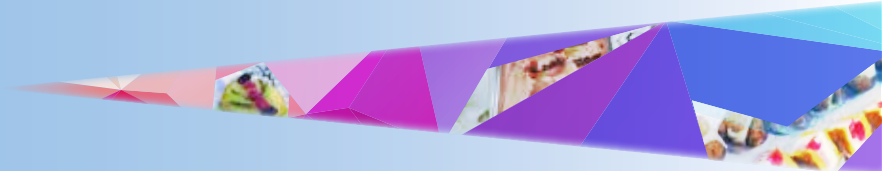
1. **CREAM CYCLE**, used to prepare creams, pastry products and gelato mixtures.
2. **HEATING CYCLE**, used to prepare products that require heating.
3. **COMBINED CYCLE**, for hot preparation: pasteurises the mixture and freezes it to turn it into gelato.
4. **COOLING CYCLE**, for cold preparation: cools the mixture and freezes it to turn it into gelato.

The “CREMAGEL 5” model is designed to be used on a workbench or a mobile table (optional). 1÷5 litres can be mixed per cycle.

The “CREMAGEL 10” model is fitted with rotating wheels so that it is easy to move. 3÷10 litres can be mixed per cycle.

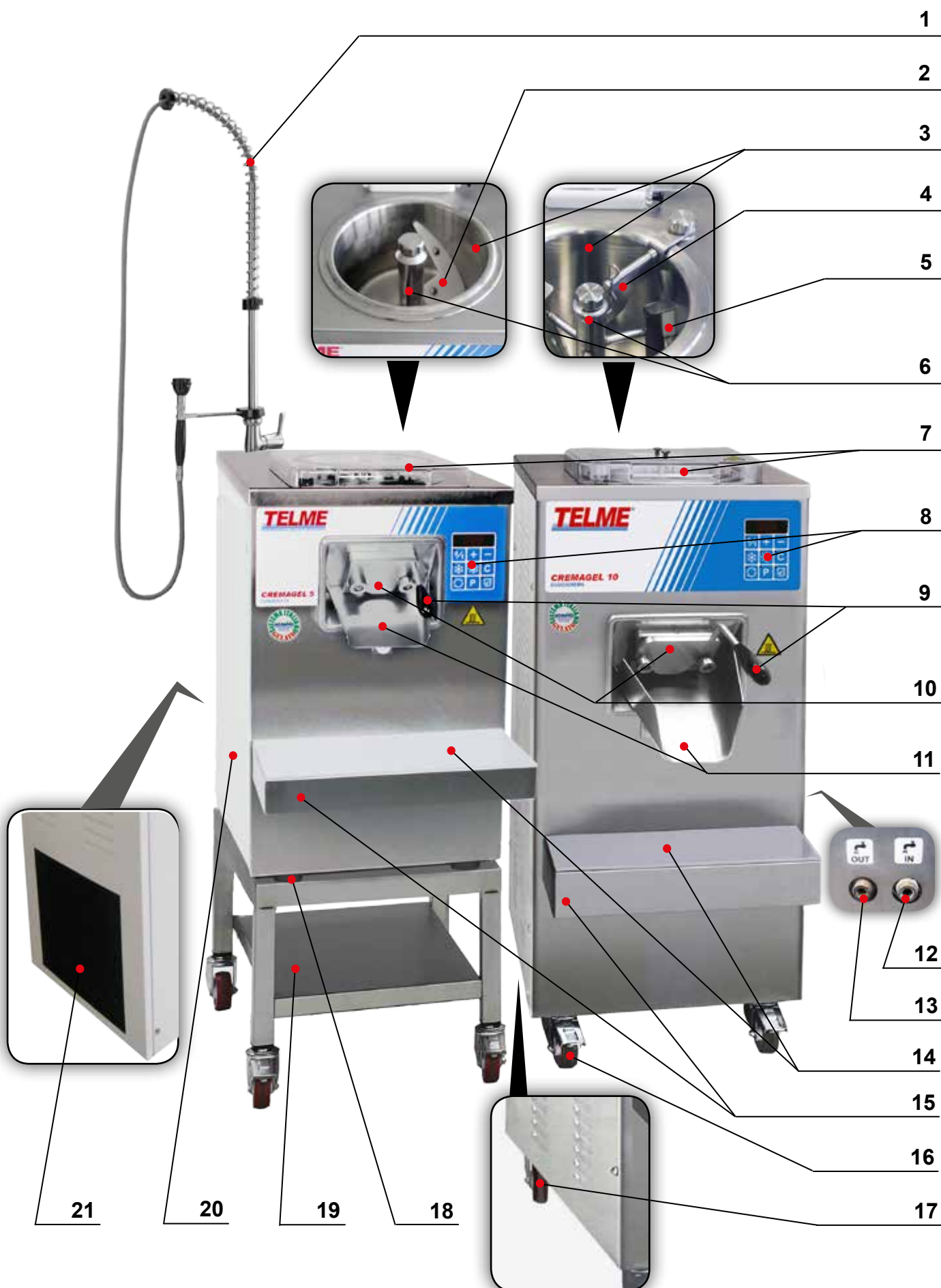
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2.2 Illustration of the machine as a whole and its components

1. Shower unit for washing the cylinder (optional)
2. Scraper paddles (only for "CREMAGEL 5")
3. Cylinder
4. Retaining paddle (only for "CREMAGEL 10")
5. Scraper plugs (only for "CREMAGEL 10")
6. Mixer
7. Cover
8. Control panel
9. Extraction door lever
10. Extraction door
11. Extraction door chute
12. Connector for inflow of condensation water (only for "CREMAGEL 10" in the water version)
13. Connector for outflow of condensation water (only for "CREMAGEL 10" in the water version)
14. Mat
15. Basin support
16. Front wheels with brake (only for "CREMAGEL 10")
17. Rear wheels (only for "CREMAGEL 10")
18. Support feet (only for "CREMAGEL 5")
19. Mobile table (only for "CREMAGEL 5")
20. Outer panels
21. Air condenser grill (for "CREMAGEL 5 and CREMAGEL 10" in air version)

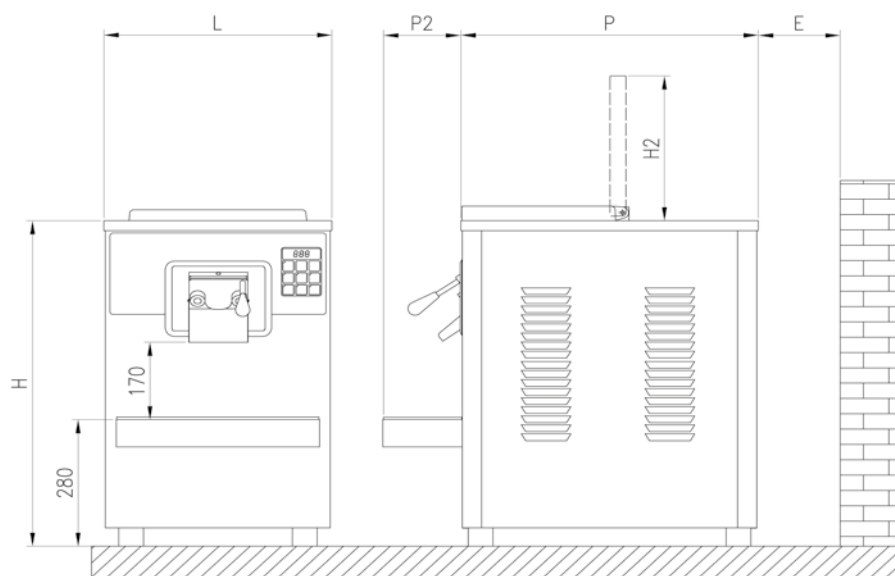


2.3 Working and control position

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

2.4 Machine technical data

Model		CREMAGEL 5	CREMAGEL 10
Net weight	kg	110	182
Coolant gas	(type)	R404A	
For water version (quantity)	g /		
For air version (quantity)	g	1300	1500
Heat transfer fluid	(type)	TEMPER (Ethylene glycol)	
	kg	1.5	2.0
Quantity of product that can be processed (min.+max.) GELATO	l.	1÷5	3÷10
(min.+max.) CREAM	l.	/	4÷8
(min.+max.) SLUSH	l.	/	4÷8
Max. ambient temperature	°C	+35	
WATER version machine:(coolant gas pressure)	bar	/	14
"CONDENSATION" (coolant gas temperature)	°C	/	+32°C
WATER version machine:(coolant gas pressure)	bar	/	1 ÷ 0.4
"EVAPORATION" (coolant gas temperature)	°C	/	-30÷ -39
Mains water temperature	°C	/	+18 ÷ +25
Infeed water pressure	bar	/	1 ÷ 7
Water consumption	l/min	/	4÷5
AIR version machine: (coolant gas pressure)	bar	17.2 ÷ 22	
"CONDENSATION" (coolant gas temperature)	°C	+40 ÷ +50	
AIR version machine: (coolant gas pressure)	bar	1 ÷ 0.6	
"EVAPORATION" (coolant gas temperature)	°C	-30÷ -36	



Model		CREMAGEL 5	CREMAGEL 10
Dimensions	L (mm)	450	490
	D (mm) Water version	/	
	D (mm) Air version	600	600
	D2 (mm) 160 200		
	H (mm) 720 1100		
	H2 (mm) 310 390		
	For air version E (mm)	500	500
	For water version E (mm)	300	300

RATED POWER / RATED CURRENT

Power supply voltage (Volts)	Frequency (Hz)	Phases	Cremagel 5	Cremagel 10
230	50/60Hz	1	/	/
230 Air version	50	1	/	/
230	50	3	3 kW - 8 A	5 kW - 15 A
230 Air version	50	3	3 kW - 8 A	5 kW - 15 A
220	60	3	3 kW - 9 A	5 kW - 16 A
220 Air version	60	3	3 kW - 9 A	5 kW - 16 A
380	60	3	3 kW - 6 A	5 kW - 8 A
380 Air version	60	3	3 kW - 6 A	5 kW - 8 A
400	50	3	3 kW - 6 A	5 kW - 8 A
400 Air version	50	3	3 kW - 6 A	5 kW - 8 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 TELME SPA and are available to monitoring authorities.



TEST DOCUMENTS AND CERTIFICATES FOR THE INSTRUMENTS USED FOR THE MEASUREMENTS ARE FILED AT TELME S.p.A. 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.
5. Basin for washing

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, benzine 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.

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, designed to detect the magnet fitted on the cover. Incorrect installation or magnet contact failure activates a machine alarm, preventing it from starting.



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.



3.2.2 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.



This symbol indicates the presence of a burn hazard.

It indicates to the relevant personnel the risk of contact with hot surfaces if they do not work in compliance with safety regulations.

Wear suitable gloves to protect against heat.



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 ÷ +35°C (35.6°F ÷ 95°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 refrigeration system.



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

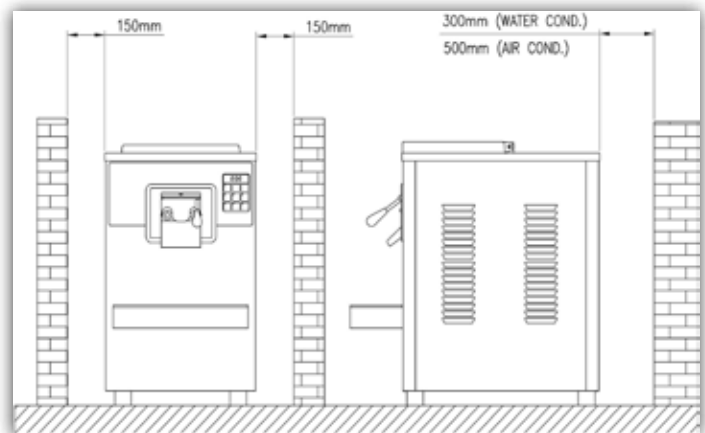
USE OF THE MACHINE IN POTENTIALLY EXPLOSIVE ATMOSPHERES IS STRICTLY PROHIBITED.



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.

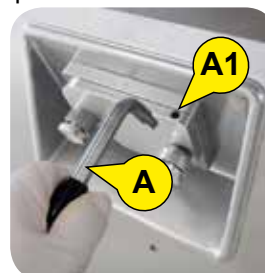


4.4 Installation and assembly sequences of machine components

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 holes (C) on the front panel.
- Position the chute and tighten the 2 clamp screws (D) below it.



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

3. Basin support and mat

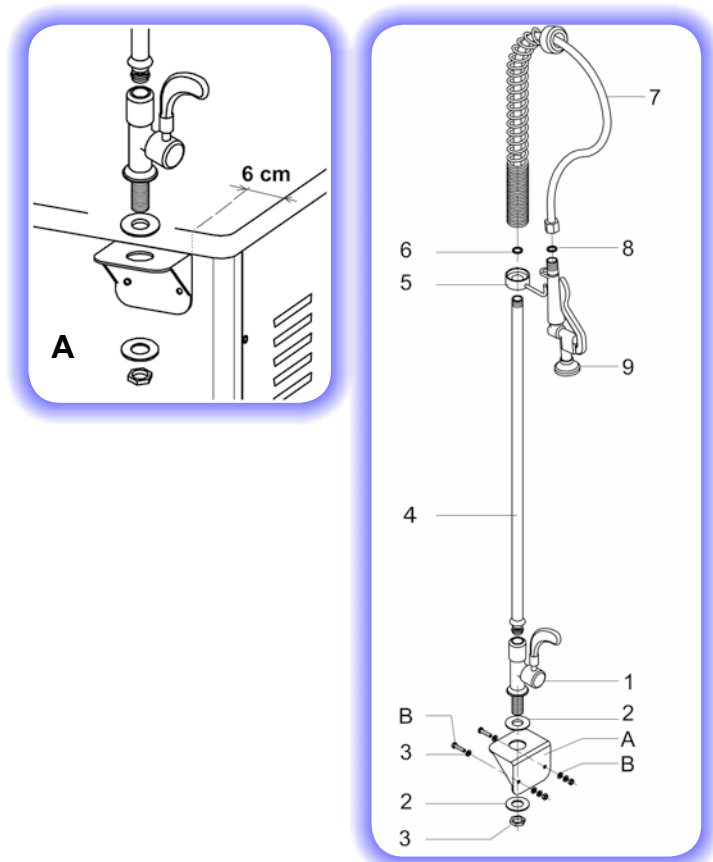
- There are two slots (F) in the back of the basin support. Fit them over the clamp screws (G) partly tightened on the front panel. When the basin support is in place, tighten the screws.
- Place the mat (H) supplied on top of the basin support.



4.4.1 Assembling the shower unit

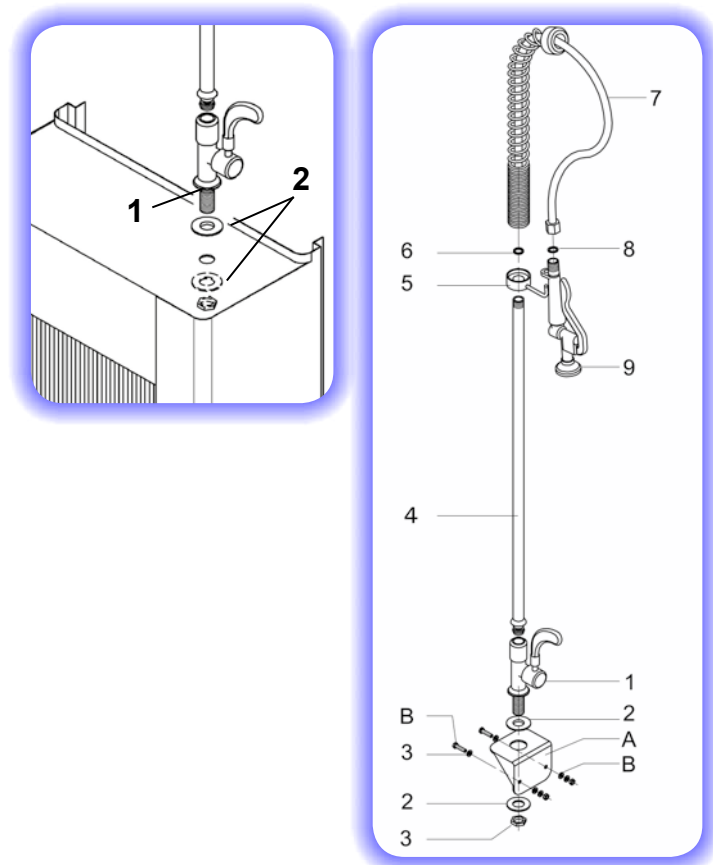
Water version machine

- Place the bracket (A) on the back of the machine approx. 6 cm from the outer edge and secure it with the screws supplied (B).
- Insert the tap (1) in the hole in the bracket (A), making sure that the upper and lower washers (2) adhere to the bracket. Then secure the shower unit with the nut (3).
- Screw the chrome-plated tube (4) onto the tap (1).
- Fit the shower support (5) on the chrome-plated tube (4), locking it with the screw supplied. Screw the flexible hose (7) onto the chrome-plated tube (4), making sure that the gasket (6) is correctly inserted in its seat.
- Fit the shower (9) on the flexible hose (7), making sure that the gasket (8) is correctly inserted in its seat.
- Use a flexible hose to connect the shower unit tap to the water supply.



Air version machine

- Insert the tap (1) in the hole in the rear panel, ensuring that the upper and lower washers (2) adhere to the panel structure. Then secure the shower unit with the nut (3).
- Screw the chrome-plated tube (4) onto the tap (1).
- Fit the shower support (5) on the chrome-plated tube (4), locking it with the screw supplied. Screw the flexible hose (7) onto the chrome-plated tube (4), making sure that the gasket (6) is correctly inserted in its seat.
- Fit the shower (9) on the flexible hose (7), making sure that the gasket (8) is correctly inserted in its seat.
- Use a flexible hose to connect the shower unit tap to the water supply.





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 UNSUITABLE ELECTRICITY SUPPLY SYSTEM OR EARTHING.



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 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 Machine with water cooling (except for “CREMAGEL 5”)

For water condensed machines, a water supply tube and a water drainage tube have to be fitted. Connect a valve or tap (1) before the delivery tube.

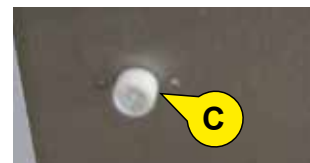
The threaded connectors are on the back of the machine, in the lower area. Each connector is marked with a label indicating its purpose, as below:

- A. IN - Machine water infeed (pressure between 1 and 7 bar)
- B. OUT - Machine water outfeed

For the water connections, use rubberised fabric tubes suitable for a pressure of up to 15 bar. To connect the tubes to the machine's threaded connectors, use $\frac{3}{4}$ " fittings with gaskets and a suitable tube tightening clip, with clamp screws. Connect a valve or tap before the delivery tube, so as to regulate the inflow of water.



Note: on the back of the machine there is the threaded connector (C) for the drinking water infeed necessary to wash the dispensing spout.



DO NOT INVERT CONNECTION OF THE TUBES AND MAKE SURE THE TUBES ARE NOT PINCHED OR BENT AT TIGHT ANGLES.

WATER FED IN WHICH IS AT A TEMPERATURE THAT IS TOO HIGH (ABOVE 28°C) WOULD PREVENT CORRECT OPERATION OF THE HEAT EXCHANGER FITTED ON THE MACHINE.

UNSUITABLE TUBES OR CONNECTORS MAY CAUSE LEAKS, WITH CONSEQUENT PROBLEMS IN THE WORKING ENVIRONMENT. WATER LEAKS MAY SERIOUSLY DAMAGE THE MACHINE.

IF THE MAINS WATER USED TO SUPPLY THE MACHINE IS HARD WATER OR CONTAINS A LOT OF IMPURITIES, INSTALL A SUITABLE DECALCIFICATION OR FILTERING DEVICE UPSTREAM OF THE DELIVERY TUBE.

MACHINE WATER INFED (IN) PRESSURE MUST BE BETWEEN 1 AND 7 BAR. IF NOT THE MACHINE WILL DEVELOP OPERATING FAULTS.

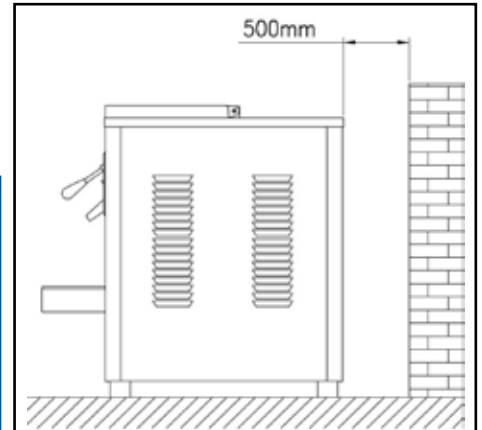
IF THE MACHINE WATER INFED (IN) PRESSURE IS ABOVE THE LIMITS ALLOWED, INSTALL A SUITABLY REGULATED PRESSURE LIMITER UPSTREAM OF THE DELIVERY TUBE. IF NOT THE MACHINE COULD BE DAMAGED AND STOP OPERATING.

IN TEMPERATURES BELOW 0°C IT IS ESSENTIAL TO EMPTY THE WATER FROM THE MACHINE COOLING SYSTEM. OTHERWISE IT COULD FREEZE IN IT, CAUSING SERIOUS DAMAGE.



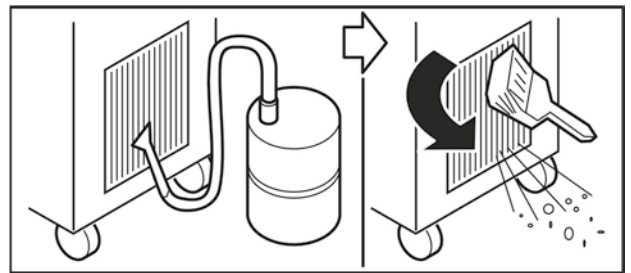
4.7 Air-cooled machine

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 REFRIGERATION SYSTEM.

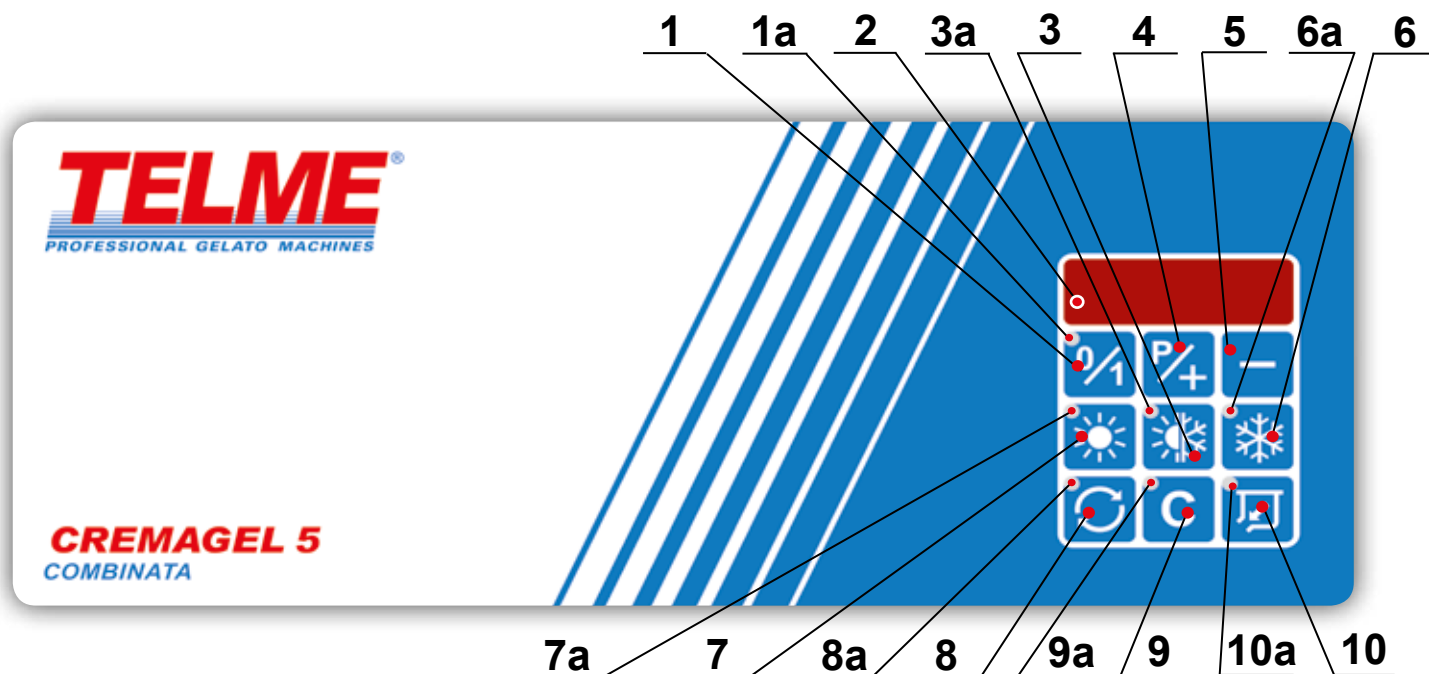


INADEQUATE MACHINE VENTILATION COULD COMPROMISE CORRECT OPERATION AND ITS PRODUCTION CAPACITY.

5 MACHINE OPERATION

5.1 Controls

The control panel functions are illustrated below:



1. ON/OFF button

For switching the machine on and off. Press to prepare the machine to operate and subsequently the tank temperature is displayed on the digital display (2).

1a. Power LED

Light indicates that the machine is powered up. When lit the LED indicates that the machine is supplied with electricity.

2. Digital display

Displays the functions and data set.

3. "COMBINED CYCLE" button

Starts the "COMBINED" cycle (pasteurises and cools the mixture) to produce GELATO. When the cycle is ON its specific warning lamp (3a) lights up. When this button is pressed the mixer in the cylinder and the machine heating system to pasteurise the mixture are activated automatically. The cycle terminates when the product in the cylinder reaches the factory set cooling temperature. The cooling system switches off automatically whilst the clockwise stirring 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.

4. Programming/Adjustment button +

Dual function button:

- a) accesses the machine programming functions (see the 5.3 "Programming" section of this manual).
- b) increases the value selected in the various programming functions when pressed. .

5. Adjustment button -

decreases the value selected when pressed.

This button is activated only during programming functions and



6. "COOLING CYCLE" button

Starts the "COOLING" cycle to produce GELATO.

When the cycle is ON its specific warning lamp (6a) lights up. When this button is pressed the mixer in the cylinder and the machine refrigeration system are activated automatically. The cycle terminates when the product in the cylinder reaches the factory set cooling temperature. The cooling system switches off automatically whilst the clockwise stirring 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.

7 "HEATING CYCLE" button

Starts the hot preparation process for products that

require only the heating cycle (e.g.: fruit jam, panna cotta, etc.) When the cycle is ON its specific warning lamp (7a) lights up. When this button is pressed the mixer in the cylinder and the machine heating system are activated automatically. The cycle terminates when the product in the cylinder reaches the factory set heating temperature. Press the button again to deactivate the cycle and stop the machine.

8. Manual stirring button

Starts or stops the CONTINUOUS rotation, clockwise,

of the mixer impeller in manual mode. Press this button to mix the ingredients in the tank. When the button is activated the warning lamp (5a) comes on.

9. "CREAM CYCLE" button

Starts the "CREAM" cycle to product PASTRY

CREAM and VARIOUS TYPES OF CREAM. When the cycle is ON its specific warning lamp (9a) lights up. When this button is pressed the mixer in the cylinder and the machine heating system are activated automatically. In the cooling phase the mixer operates intermittently to avoid wearing out the cream, as described in 5.6 "Production with cream cycle". The cycle terminates when the product in the cylinder reaches the factory set cooling temperature. The cooling system switches off automatically whilst the clockwise stirring 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.

10. Extraction button

Starts the counterclockwise rotation of the mixer in-

side 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 (10a) comes on.

Notes:

Do not press the "extraction" button when the mixture or product inside the cylinder is liquid, because the high rotating speed of the mixer (counterclockwise) would make the product come out of the cylinder suddenly.

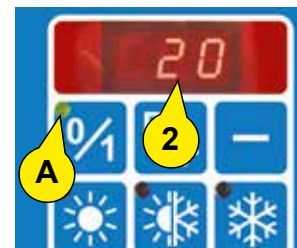
Do not press the "extraction" button at the end of the slush production cycle, because the high rotating speed of the mixer (counterclockwise) would make the product come out of the cylinder suddenly. Press the "stir" button (mixer clockwise rotation) to make the slush come out correctly from the machine cylinder.

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 (A) is lit. Press the on/off 0/1 key to prepare the machine to operate and subsequently the tank temperature is displayed on the digital display (2).



The operation set at the factory proceeds as follows:

1. Production with "CREAM" cycle , to prepare creams, pastry products and gelato mixtures.
2. Production with "HEATING" cycle , to prepare fruit jams, panna cotta and products that must be prepared hot.
3. Production with "COMBINED" cycle , (pasteurisation and subsequent cooling of the mixture), to produce gelato and slush.
4. Production with "COOLING" cycle , to produce gelato and slush.

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 and retaining paddle locking knobs are fully tightened.
- Check that the extraction door is closed and pour the pasteurised mixture or the pre-packaged food products in the cylinder. The suitable quantity of product which can be processed is indicated in sec. 2.4, "Machine technical data" of this manual.
- For water-cooled machines, check that the water inlet tap is open.
- 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



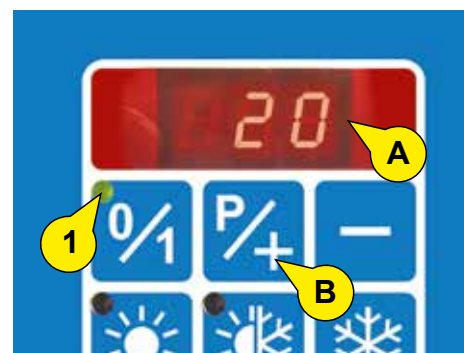
DURING ITS FACTORY INSPECTION, THE MACHINE HAS BEEN PROGRAMMED WITH OPTIMAL TIME AND TEMPERATURE PARAMETER VALUES FOR THE OPERATION CYCLES.

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 button.
- The machine prepares itself to operate and subsequently the tank temperature is displayed on the digital display (2).
- Keep the “PROGRAMMING/ADJUSTMENT +” (A) button pressed for a few seconds to access the programming functions.
- Press the “PROGRAMMING/ADJUSTMENT +” button (B) to access the programming parameters of the 4 machine production cycles:

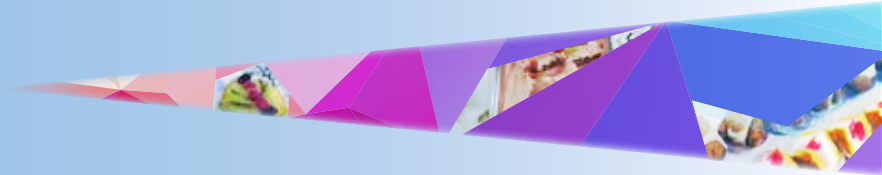


Code	Function
P1	“CREAM” cycle
P2	“HEATING” cycle
P3	“COMBINED” cycle
P4	“COOLING” cycle



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.



For each operating cycle, the operator can set different use parameters to the factory set ones. The parameters to set are indicated by a flashing code and are displayed automatically in sequence on the digital display of the machine, after the "PROGRAMMING/ADJUSTMENT +" button (B) has been pressed, as described below.

5.3.1 P1. "CREAM" cycle

Code	Function
------	----------

P1C	Heating temperature adjustment in the "CREAM" cycle
------------	---

P1t	Storage time adjustment in the "CREAM" cycle
------------	--

P1F	Cooling temperature adjustment in the "CREAM" cycle
------------	---

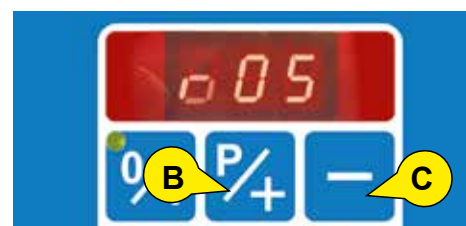
P1C: Heating temperature adjustment in the "CREAM" cycle

- Having pressed the "PROGRAMMING/ADJUSTMENT +" button (B), the **P1C** code flashes on the digital display. Five seconds later, a numerical value indicating the heating temperature set appears automatically on the digital display.
- Press adjustment buttons (B) and (C) to increase or reduce the heating temperature value. The temperature can be adjusted within a range of +20°C and +99°C.
The factory set value is +95°C.



P1t: Storage time adjustment in the "CREAM" cycle

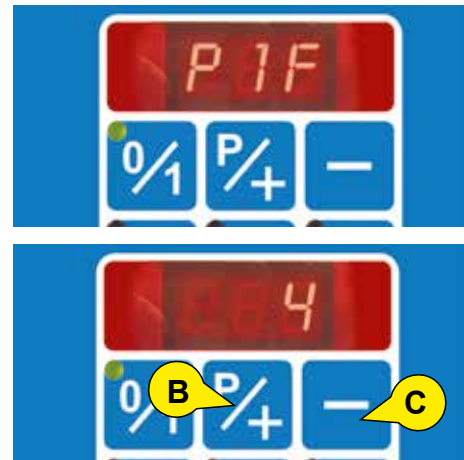
- When the P1C code value is displayed automatically, after 5 seconds the **P1t** code flashes automatically. Five seconds later, a numerical value indicating the storage time set appears automatically on the display. .
- Press adjustment buttons (B) and (C) to increase or reduce the storage time value. The time can be adjusted within a range of 0 and 60 minutes.
The factory set value is 5 minutes.





Cooling temperature adjustment in the “CREAM” cycle

- When the P1F code value is displayed automatically, after 5 seconds the **P1F** code flashes automatically. 5 seconds later, a numerical value indicating the cooling temperature set appears automatically on the digital display.
- Press adjustment buttons (B) and (C) to increase or reduce the cooling temperature value. The temperature can be adjusted within a range of +60°C and 0°C.
The factory set value is +4°C.



5.3.2 P2. “HEATING” cycle:

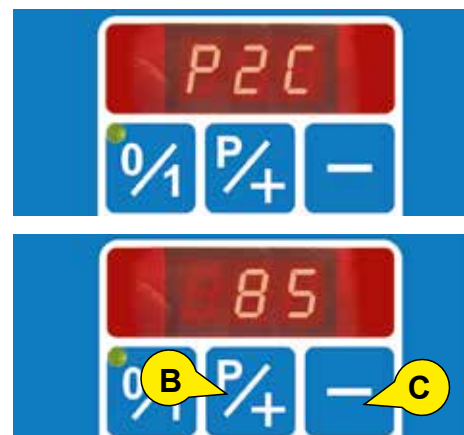


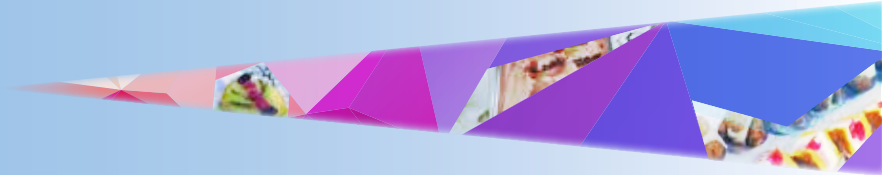
Code	Function
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P2C	“HEATING” cycle temperature adjustment
-----	--

P2C: “HEATING” cycle temperature adjustment

- When the P1F code value is displayed automatically, after 5 seconds the **P2C** code flashes automatically. 5 seconds later, a numerical value indicating the heating temperature set appears automatically on the digital display.
- Press adjustment buttons (B) and (C) to increase or reduce the heating temperature value. The temperature can be adjusted within a range of +20°C and +99°C.
The factory set value is +85°C.





5.3.3 P3. “COMBINED” cycle:

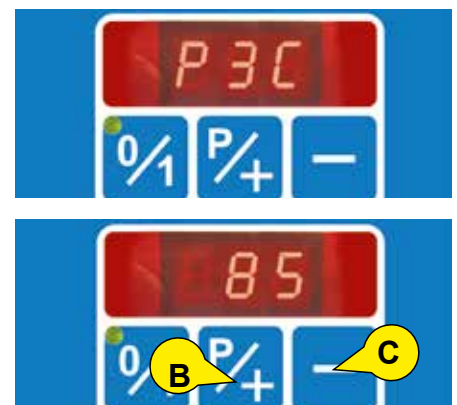


Code	Function
------	----------

P3C	Pasteurisation temperature adjustment in the “COMBINED” cycle
P3t	Storage time adjustment in the “COMBINED” cycle
P3F	Cooling temperature adjustment in the “COMBINED” cycle

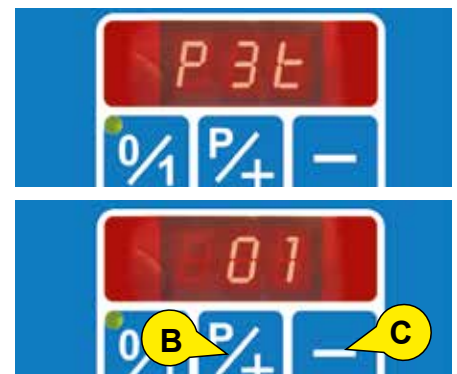
P3C: Pasteurisation temperature adjustment in the “COMBINED” cycle

- When the P2c code value is displayed automatically, after 5 seconds the **P3C** code flashes automatically. 5 seconds later, a numerical value indicating the pasteurising temperature set appears automatically on the display.
- Press adjustment buttons (B) and (C) to increase or reduce the pasteurisation temperature value. The temperature can be adjusted within a range of 0°C and +99°C.
The factory set value is +85°C.
The pasteurisation temperature must be set between +65°C and +90°C.



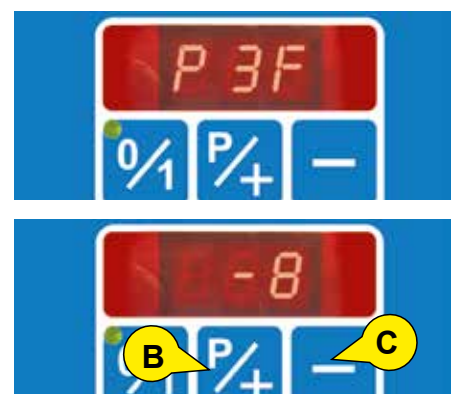
P3t: Storage time adjustment in the “COMBINED” cycle

- When the P3C code value is displayed automatically, after 5 seconds the **P3t** code flashes automatically. 5 seconds later, a numerical value indicating the storage time set appears automatically on the display.
- Press adjustment buttons (B) and (C) to increase or reduce the storage time value. The time can be adjusted within a range of 0 and 60 minutes.
The factory set value is 1 minutes.



P3F: Cooling temperature adjustment in the “COMBINED” cycle

- When the P3t code value is displayed automatically, after 5 seconds the **P3F** code flashes automatically. 5 seconds later, a numerical value indicating the cooling temperature set appears automatically on the digital display.
- Press adjustment buttons (B) and (C) to increase or reduce the cooling temperature value. The temperature can be adjusted within a range of +60°C and -16°C.
The factory set value is -8°C.





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 $-5 \div -6$ °C SHOULD BE SET.

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

FOR “RICH” MIXTURES WITH A LARGE QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF $-9 \div -10$ °C SHOULD BE SET.

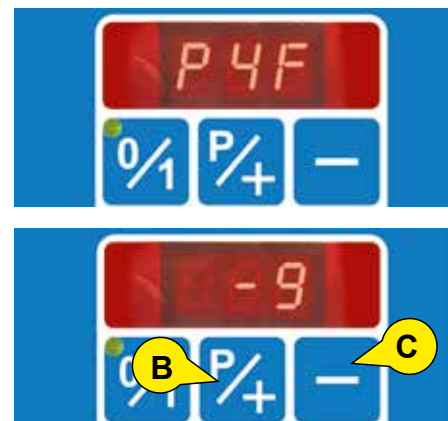
5.3.4 P4. “COOLING” cycle:

Code	Function
------	----------

P4F	“COOLING” cycle temperature adjustment
-----	--

P4F: “COOLING” cycle temperature adjustment

- When the P3F code value is displayed automatically, after 5 seconds the **P4F** code flashes automatically. 5 seconds later, a numerical value indicating the cooling temperature set appears automatically on the digital display.
- Press adjustment buttons (B) and (C) to increase or reduce the cooling temperature value. The temperature can be adjusted within a range of $+60$ °C and -16 °C.
The factory set value is -9 °C.



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 $-5 \div -6$ °C SHOULD BE SET.

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

FOR “RICH” MIXTURES WITH A LARGE QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF $-9 \div -10$ °C SHOULD BE SET.

5.4 Production with "CREAM" cycle

The "CREAM" cycle is used to produce creams and pastry products. In the cooling phase the mixer operates intermittently to avoid wearing out the cream.

- Check that the power LED (A) is on and press the machine on/off 0/1 button.



The operator can check and edit, if necessary, the value of the parameters for the "CREAM" cycle:

P1C heating temperature, **factory setting +95°C**

P1t storage time, **factory setting 5 minutes;**

P1F cooling temperature, **factory setting 4°C.**

Follow the instructions given in section 5.3.1 of this manual.

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

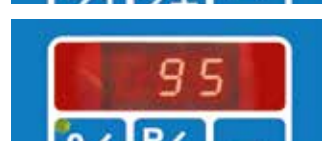


The suitable quantity of product which can be processed is indicated in sec. 2.4, "Machine technical data" of this manual.

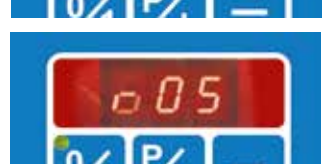
- Close the cover and start the "CREAM CYCLE" by pressing the relative button (B), its warning light will switch on as well as the light of the "STIRRING" (C) button.



- The mixture will be heated to the factory set "HEATING TEMPERATURE" (P1C) of +95°C. The mixture temperature increase is displayed on the digital display until the heating temperature set is reached.

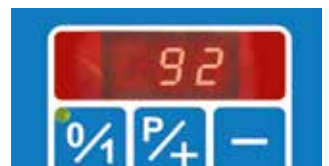


- Once the heating temperature of +95°C is reached, the factory set storage extra time (P1t) is 5 minute. The digital display shows a small square with flashing sides and the storage time set, expressed in minutes, that progressively is reset.



- The warning light of the "CREAM" cycle flashes during the storage time.

- Once the storage phase ends the mixture cooling phase starts automatically until the factory set cooling temperature (P1F) of +4°C.



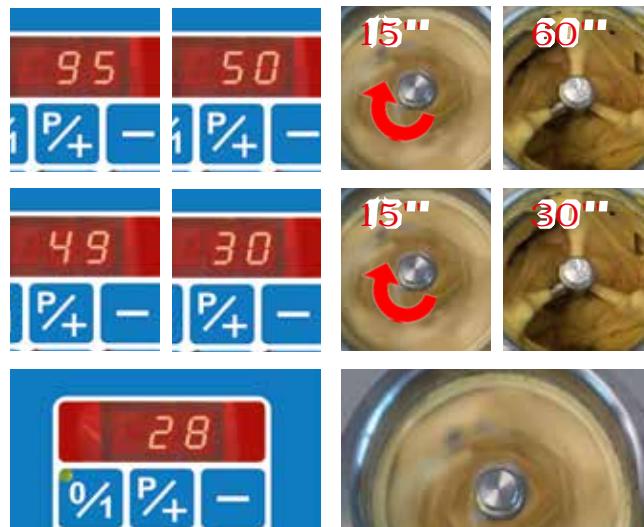
- The drop in the temperature of the mixture is shown on the digital displays up until the cooling temperature set is reached.





In the cooling phase the mixer operates intermittently to avoid wearing out the cream as described below:

- from the set heating temperature (P1C=+95°C factory setting) until +50°C, the mixer operates in intermittent mode, with an operating time of 15 seconds and with pauses of 60 seconds.
- From the temperature of +49°C until +30°C, the mixer operates in intermittent mode, with an operating time of 15 seconds and with pauses of 30 seconds.
- Below the temperature of +30°C the mixer operates in continuous mode.



- Once the set cooling temperature has been reached (P1F: +4°C), the operator will be warned with a beep.
- Once the cycle has ended the cooling system switches off automatically whilst the clockwise stirring 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 storage phase 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 cooling temperature set.
- The warning light of the "STIRRING" (C) button remains on to signal 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 STIRRING.

- Position a suitable container on the machine shelf and open the extraction door to extract the cream.
- To end the extraction and stop the machine press the "CREAM CYCLE" button (B). Its warning lamp will switch off.



Do not press the "extraction" button at the end of the cream production cycle, because the high rotating speed of the mixer (counterclockwise) would make the product come out of the cylinder suddenly.

Press the "stir" button (mixer clockwise rotation) to make the cream come out correctly from the machine cylinder.

5.5 Production with “HEATING” cycle

The "HEATING" cycle is used to produce products that require hot preparation (e.g. fruit jams, panna cotta, etc.). The product is heated to the set temperature.

- Check that the power LED (A) is on and press the machine on/off 0/1 button.



The operator can check and edit, if necessary, the value of the parameters for the “HEATING” cycle:

P2C heating temperature, **factory setting +85°C**;

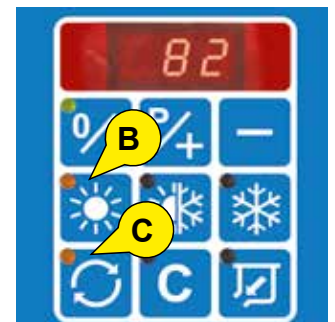
Follow the instructions given in section 5.3.2 of this manual.

- Before starting the production check that the extraction door is closed and then 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 “HEATING CYCLE” by pressing the relative button (B), its warning light will switch on as well as the light of the “STIRRING” (C) button.
- The mixture will be heated to the “HEATING TEMPERATURE” (P2C), factory set at +85°C.
- The rise in the temperature of the mixture is shown on the digital displays up until the heating temperature set is reached.
- Once the set heating temperature has been reached (P2C: +85°C), the operator will be warned with a beep.
- Once the cycle has ended the heating system switches off automatically whilst the clockwise stirring of the mixer continues.
- If it is not removed the product remains in the storage phase in the cylinder with a factory set temperature delta of 2°C. When the temperature of the product decreases inside the cylinder, the heating system starts automatically to restore the heating temperature set. The warning light of the “STIRRING” (C) button remains on to signal that the cycle is still active.





WHEN EXTRACTING “HOT” PRODUCTS USE ADEQUATE P.P.E. AGAINST THE HEAT.

WHEN DISPENSING HOO LIQUIDS, DO NOT PRESS THE “STIRRING” OR “EXTRACTION” BUTTONS, BECAUSE THEY WOULD MAKE THE PRODUCT COME OUT SUDDENLY WITH A RISK OF CAUSING DAMAGE TO THINGS AND/OR PEOPLE.

- Position a suitable container on the machine shelf and gradually open the extraction door.
- Extract the product (not liquid) by pressing the “STIRRING” button (D). When extraction is activated the warning lamp comes on.
- Use the spatula supplied to help the product flow into the container.
- To end the extraction and stop the machine press the “HEATING CYCLE” button (B). Its warning lamp will switch off.



5.6 Production with “COMBINED” cycle

The "COMBINED" cycle is used to produce gelato. It includes the pasteurisation of the mixture and subsequent cooling to turn it into gelato.

- Check that the power LED (A) is on and press the machine on/off 0/1 button.



The operator can check and edit, if necessary, the value of the parameters for the “COMBINED” cycle:

P3C pasteurisation temperature, **factory setting +85°C**;

P3t storage time, **factory setting 1 minute**;

P3F cooling temperature, **factory setting -8°C**.

Follow the instructions given in section 5.3.3 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.

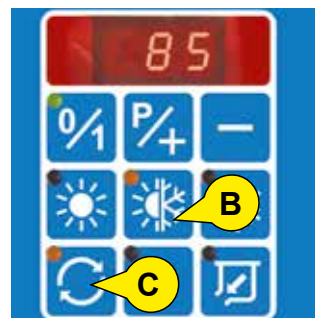
FOR “RICH” MIXTURES WITH A LARGE QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF -9 ÷ -10 °C SHOULD BE SET.

- Before starting the production check that the extraction door is closed and then 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 “COMBINED CYCLE” by pressing the relative button (B). Its warning light and the light of the “STIR-RING” (C) button will light up.
- The mixture will be heated to the factory set “PASTEURISATION TEMPERATURE” (P3C) of +85°C. The mixture temperature increase is displayed on the digital display until the pasteurisation temperature set is reached.

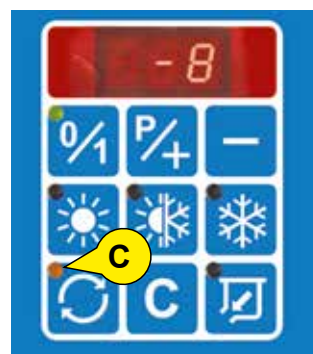
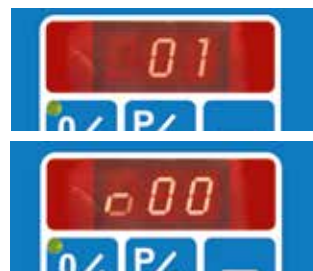


During the heating phase we recommend removing the cover from the cover grills to let the vapour come out and prevent the formation of condensation. Reposition the cover during the cooling phase.

USE HEAT PROTECTION GLOVES AND CLOTHING.

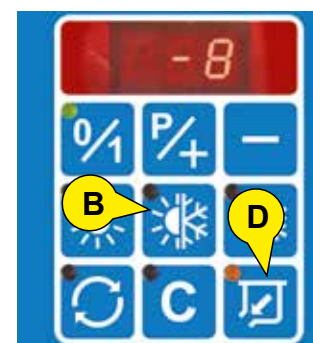


- Once the heating temperature of +85°C is reached, the factory set storage extra time (P3t) is 1 minute. The digital display shows a small square with flashing sides and the storage time set, expressed in minutes, that progressively is reset. The warning light of the "COMBINED" cycle flashes during the storage time.
- Once the storage phase ends the mixture cooling phase starts automatically to transform it in gelato. The factory set cooling temperature (P3F) is -8°C.
- The drop in the temperature of the mixture is shown on the digital displays up until the cooling temperature set is reached.
- Raggiunta la temperatura di raffreddamento impostata (P3F: -8°C), l'operatore sarà avvisato da un segnale acustico.
- Once the set cooling temperature has been reached (P3F: -8°C), the operator will be warned with a beep.
- Once the cycle has ended the cooling system switches off automatically whilst the clockwise stirring 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 storage phase 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 cooling temperature set.
- The warning light of the "STIRRING" (C) button remains on to signal 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 STIRRING.

- Position a suitable container on the machine basin support and open the extraction door.
- Extract the product by pressing the "EXTRACTION" button (D). 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 "COMBINED CYCLE" button (B). Its warning lamp will switch off.



5.7 Production with “COOLING” cycle

The “COOLING” cycle is used to produce gelato. The mixture is cooled until it turns into gelato.

- Check that the power LED (A) is on and press the machine on/off 0/1 button.



The operator can check and edit, if necessary, the value of the parameters for the “COOLING” cycle:

P4F cooling temperature, **factory setting -9°C**.

Follow the instructions given in section 5.3.4 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.

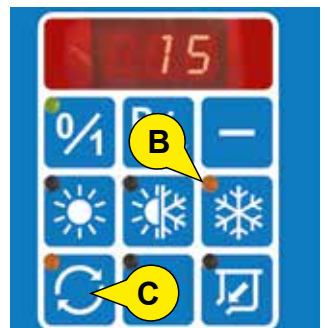
FOR “RICH” MIXTURES WITH A LARGE QUANTITY OF ANTI-FREEZE INGREDIENTS A COOLING TEMPERATURE OF -9 ÷ -10 °C SHOULD BE SET.

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



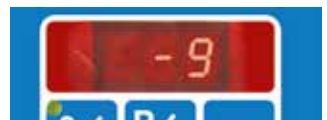
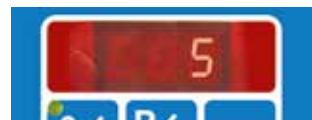
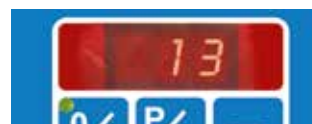
Note: The suitable quantity of product which can be processed is indicated in sec. 2.4, “Machine technical data” of this manual.

- Close the cover and start the “COOLING CYCLE” by pressing the relative button (B), its warning light will switch on as well as the light of the “STIRRING” (C) button.



- The mixture will be cooled to the “COOLING TEMPERATURE” (P4F), factory set at -9°C.

- The drop in the temperature of the mixture is shown on the digital displays up until the cooling temperature set is reached.



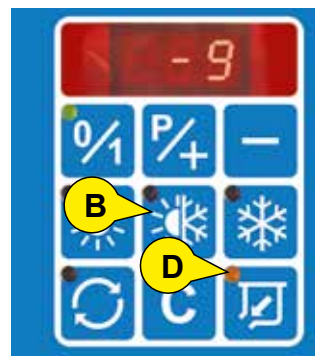


- Once the set cooling temperature has been reached (P4F: -9°C), the operator will be warned with a beep. Once the cycle has ended the cooling system switches off automatically whilst the clockwise stirring of the mixer continues to prevent the formation of ice on the sides of the cylinder.
- If it is not removed the product remains in the storage phase 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 cooling temperature set. The warning light of the "STIRRING" (C) button remains on to signal 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 STIRRING.

- Position a suitable container on the machine basin support and open the extraction door.
- Extract the product by pressing the "EXTRACTION" button (D). 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 "COOLING CYCLE" button (B). Its warning lamp will switch off.



6 WASHING

6.1 Washing and sanitising

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.



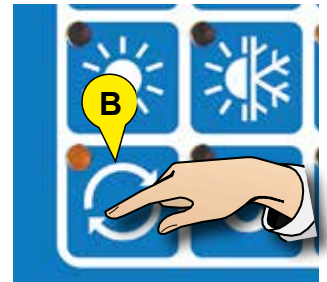
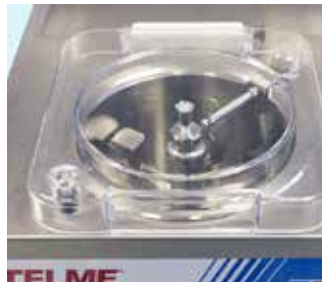
In the condition in point 3), **COMPLETE WASH**, a wash with water and detergent must be performed, as is precisely described below:



- 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.

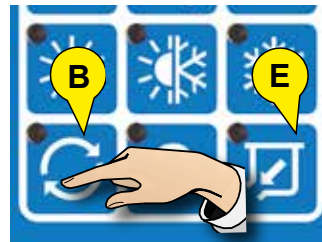
Note: Use a specific food-safe detergent, normally alkaline. The dose must comply with the instructions on the detergent packet.

- Put the cover back on and press the “STIRRING” button (B), 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.

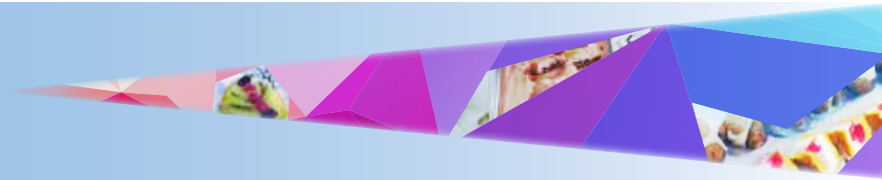
- Press the “STIRRING” button (B) again to stop the mixer and position the water collection container supplied (C), on the machine shelf.
- Gradually open the extraction door with the lever (D) and let the detergent solution flow out.



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

- With a water container or shower (optional), rinse the cylinder and mixer and let the water flow out into the collection container.
- With a water container or shower (optional), rinse the tank and the mixing impeller thoroughly.





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 bacterial 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: -

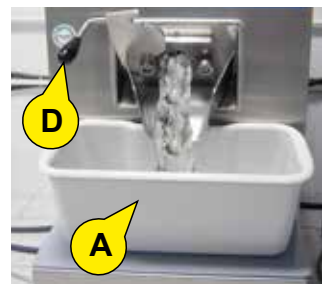
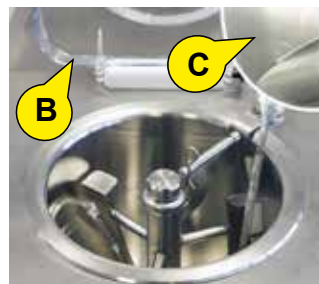


ALWAYS WEAR SUITABLE PROTECTIVE GLOVES

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) or the shower (optional) thoroughly rinse the cylinder and the mixer.
- Gradually open the extraction door (D) using the lever to allow the rinsing water to flow out.





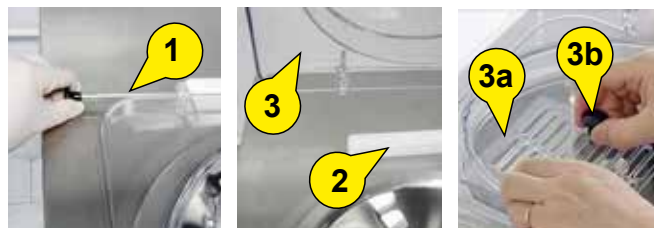
2. WASHING WITH DETERGENT PHASE:

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

a) Removing components:

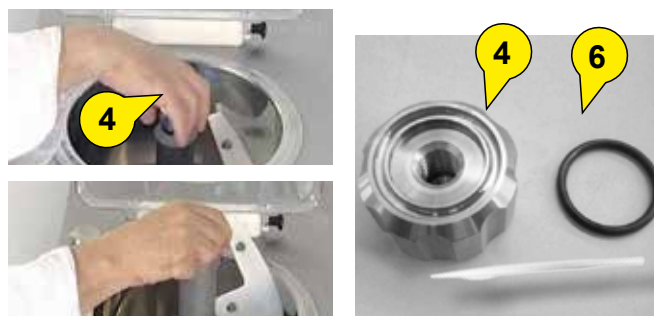
• Removing the cover

- Pull the fixing pin (1) out of the block (2) horizontally and remove the cover (3). The cover (3) has a grille closing system (3a), easily removable using the fixing knobs (3b).



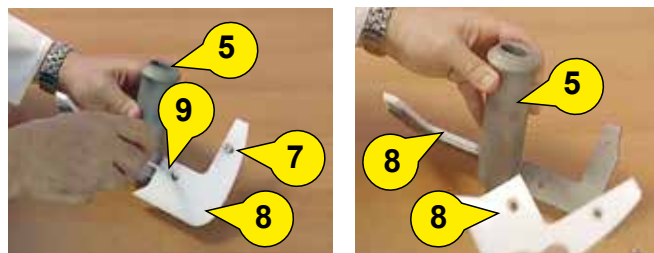
• Removing the mixer (only “CREMAGEL 5”)

- 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.



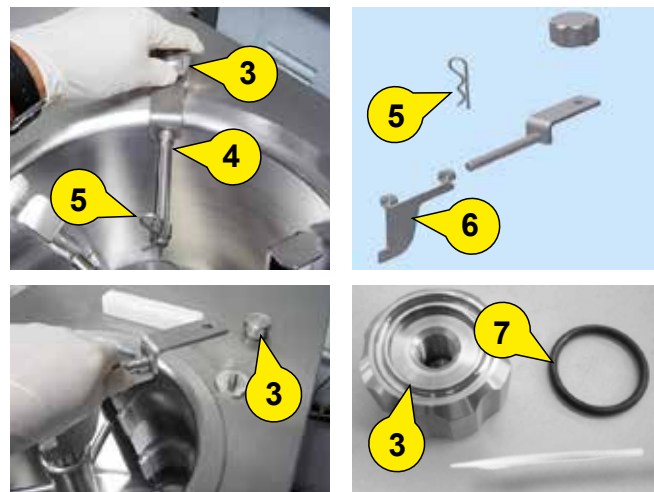
• Removing the mixer scraper paddles (only for “CREMAGEL 5”)

- Remove the fixing screws (7) of the scraper paddles (8) on the mixer (5) with a flat tip screwdriver (9).
- Remove the 2 scraper paddles (8) from the mixer (5).



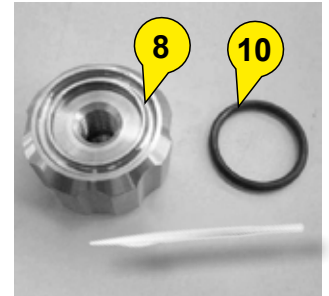
• Removing the retaining paddle (only for “CREMAGEL 10”)

- Unscrew the fixing knob (3) and remove the retaining paddle (4).
- Take out the safety stop (5) and remove the movable part (6) of the retaining paddle.
- Remove the gasket (7) from the fixing knob (3) using a non-metallic pointed tool, taking care not to damage the knob seat.



• Removing the mixer (only “CREMAGEL 10”)

- Unscrew the fixing knob (8), grip the mixer component drive and pull the mixer (9) out vertically.
- Remove the gasket (10) from the fixing knob (8) using a non-metallic pointed tool, taking care not to damage the knob seat.



• Removing the mixer scrapers (only “CREMAGEL 10”)

- Remove the side scrapers (11) using the tool supplied (12). Insert the tool under the scraper and prise off by pushing the tool down until the side scraper can be removed from its seat.
- Pull the mixer's lower scraper (13) from its seat.



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.



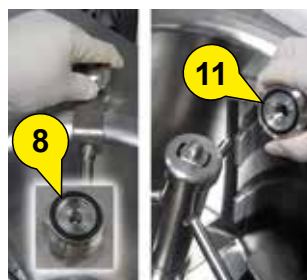
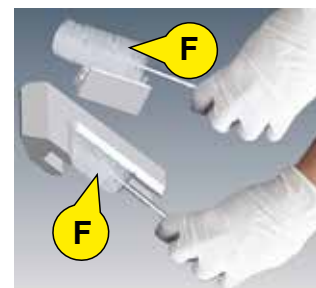
- Carry out the same washing operation, with a disposable cloth (E), on the inner surface of the cylinder and thoroughly clean the cylinder outlet using the tube brush supplied (F).



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 grooves of the mixer's plastic scrapers of the "CREMAGEL 10" using the tube brush supplied (F) or a suitable brush.
- Wash and degrease with a disposable cloth (E) soaked in detergent the gasket of the mixer fixing knob (for both "CREMAGEL 5" and "CREMAGEL 10") and the gasket of the retaining paddle knob (only for "CREMAGEL 10").



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.

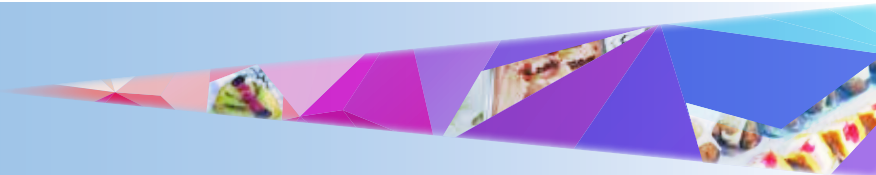
3. RINSE TO REMOVE DETERGENT PHASE:

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 (“CREMAGEL 5” and “CREMAGEL 10”)

- Unscrew the fixing screw (21) (2 screws for the “CREMAGEL 10”) below the chute (22) and remove it.

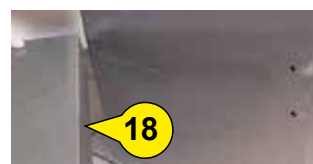


- Remove the extraction door chute (22) gasket (23) by pulling it out of its seat.



• Removing the mat and basin support

- Remove the mat (17) located on top of the basin support (19), then remove the basin support (18) 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.



- Insert the fixing pin (1) to secure the cover to the machine.
- Check that the fixing pin is completely inserted in the holes in the cover and the block.



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

• Refitting the mixer impeller

- Insert the mixer impeller (3) on the support in the middle of the tank.
- Slowly rotate the mixer impeller component drive until its pin (15) engages in the slot (16) in the motor driven shaft.

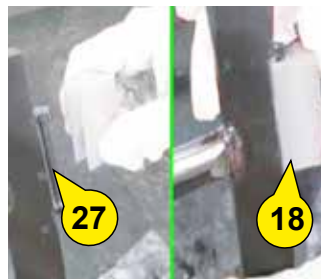


c) Refitting the components:

After washing, refit all of the machine components as described below:

• Refitting the mixer scrapers (only “CREMAGEL 10”)

- Refit the side scrapers (18) by pressing them onto the mixer (16) pins (27).
- Fit the lower scraper (20) in its seat on the mixer (16).



• Refitting the mixer inside the cylinder (only “CREMAGEL 10”)

- Fit the mixer (16) on the motor-driven shaft at the centre of the cylinder.
- Slowly turn the mixer component drive so that the pin (28), which is part of the shaft structure, engages in the slot (29) in the mixer component drive.
- Before screwing the fixing knob (15) onto the shaft, check that the gasket (17) is correctly inserted in its seat. If it is broken, worn or swollen, substitute it. Tighten the mixer (16) knob (15).



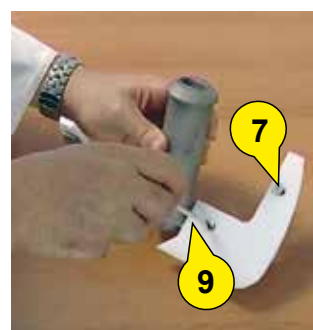
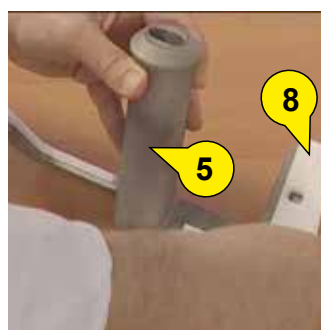
• Refitting the retaining paddle (only for “CREMAGEL 10”)

- Fit the movable part (13) on the support of the retaining paddle and position the safety stop (12).
- Position the retaining paddle (11) in the seat and use the knob (10) to secure it to the machine work surface.
- Before tightening the fixing knob (10), check that the gasket (14) is correctly inserted in its seat. If it is broken, worn or swollen, substitute it.



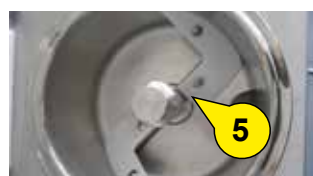
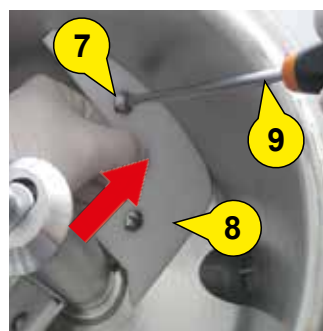
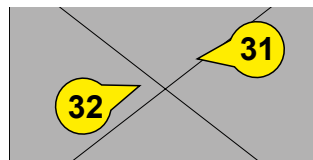
• Refitting the mixer scraper paddles (only for “CREMAGEL 5”)

- Position the scraper paddles (8) on the mixer (5) and use a flat tip screwdriver (9) to partially tighten the fixing screws (7), so that the position of the paddles inside the cylinder can be adjusted afterwards.



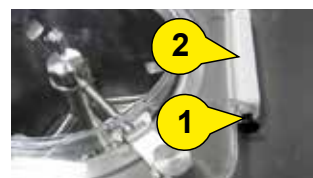
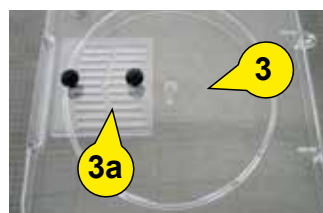
• Refitting the mixer inside the cylinder (only “CREMAGEL 5”)

- Fit the mixer (5) on the motor-driven shaft (30) at the centre of the cylinder.
- Slowly turn the mixer component drive so that the pin (31), which is part of the shaft structure, engages in the slot (32) in the mixer (5) component drive.
- Manually push the scraper paddles (8) towards the cylinder wall, so that they come into contact with the surface. Then tighten up the paddle scraper locking screws (7) using a suitable tool (flat-tip screwdriver). See section 5.8, “Adjusting the mixer scraper paddles”, of this manual.
- Before screwing the fixing knob (4) onto the motor driven shaft (30), check that the gasket (6) is correctly inserted in its seat. If it is broken, worn or swollen, substitute it. Tighten the mixer (5) knob (4).



• Refitting the cover (“CREMAGEL 5” and “CREMAGEL 10”)

- Fit the closure cover (3a) (only Cremagel 10) in the cover grills (3) with the press-fit fixing knobs (3b).
- Place the cover (3) over the machine cylinder and line up the holes in the cover with the through hole in the block (2). Insert the fixing pin (1) to secure the cover to the machine.
- Check that the fixing pin (1) is completely inserted in the holes in the cover (3) and the block (2).



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



• Removing the extraction door chute (“CREMAGEL 5” and “CREMAGEL 10”)

- Insert the extraction door chute gasket (23) in its seat.
- Position the chute (22) under the extraction door and secure it by tightening the fixing screw (21) to the front panel (2 screws for the “CREMAGEL 10”).



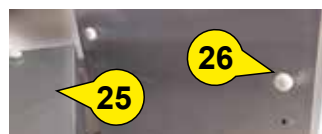
TIGHTEN THE FIXING SCREWS, CHECKING THAT THERE IS NO PLAY IN THE CHUTE.



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

• Refitting the basin support and mat (“CREMAGEL 5” and “CREMAGEL 10”)

- Fit the two slots in the basin support (25) over the fixing screws (26) partly tightened on the front panel. When the basin support (25) is in place, tighten the screws (26).
- Place the mat (24) on the basin support (25).



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 packaging, 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 $\frac{3}{4}$ full.
- Close the cover and press the “STIRRING” button, leaving the mixer running for 5 minutes.
- Press the “STIRRING” 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:

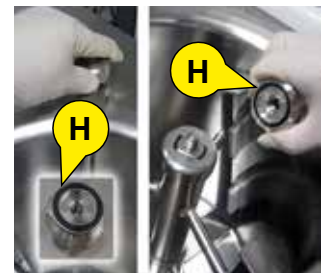
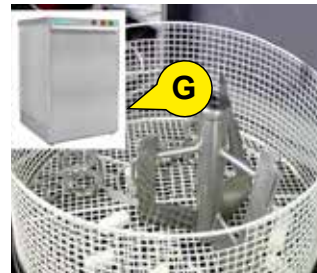
Follow the instructions on the disinfectant packaging and if necessary thoroughly rinse the machine to completely remove disinfectant residues.

- 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 parts subject to wear, such as the seal gaskets.

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

3) 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 every 3 months	Mixer scraper paddles ("CREMAGEL 5") Mixer scrapers ("CREMAGEL 10")	Replace
Every 500 hours or every 3 months	Gaskets on 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

Replacement of the scraper paddles installed on the mixer "CREMAGEL 5") **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.

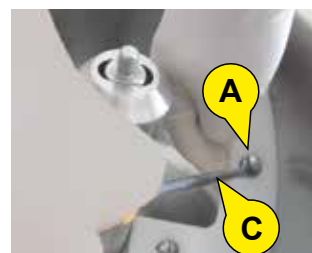
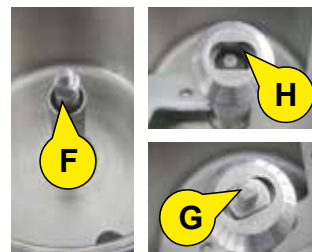
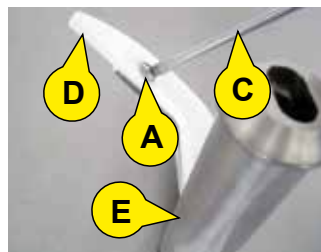
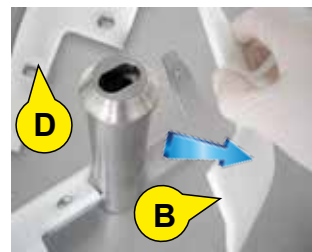
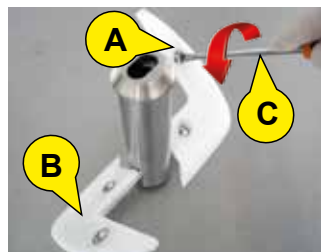


Substitute the mixer's scrapers when they show signs of wear which are obvious when looking at their scraping profiles and also indicated by the formation of streaks of product residue on the surface of the cylinder.

The mixer of the "CREMAGEL 5" model is fitted with two plastic, food-suitable scraper paddles.

Substitute as follows:

- Remove the fixing screws (A) of the scraper paddles (B) on the mixer with a flat tip screwdriver (C).
- Remove the scraper paddles (B) from the mixer and replace them with the new ones (D).
- Position the new scraper paddles (D) on the mixer (E) and use a flat-tip screwdriver (C) to partially tighten the fixing screws (A) of the scraper paddles.
- 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 scraper paddles (D) towards the cylinder wall, so that they come into contact with the surface.
- Then tighten the fixing screws (A) of the scraper paddles with a flat-tip screwdriver (C). See the 5.8, "Adjusting the mixer scraper paddles" section, of this manual.





Replacing the scrapers installed on mixer

“CREMAGEL 10”)

S02

CHECKING INTERVAL: 500 hours or quarterly

AUTHORISED OPERATOR: 1 Operator

TIME NEEDED: 15 minutes

TOOL: Tool supplied

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



Substitute the mixer's 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.

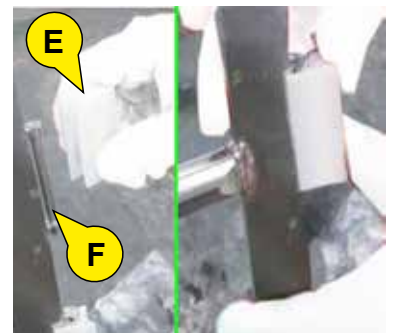
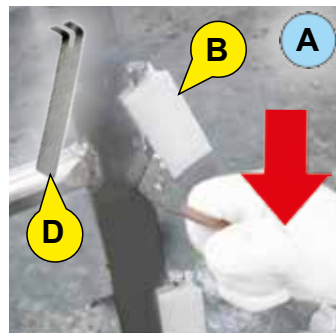
The multi-purpose standard mixer (A) has several parts made of food-safe plastic, which can be split into two types:

- *side scrapers (B), snap-on.*
- *lower scraper (C), slide-on.*

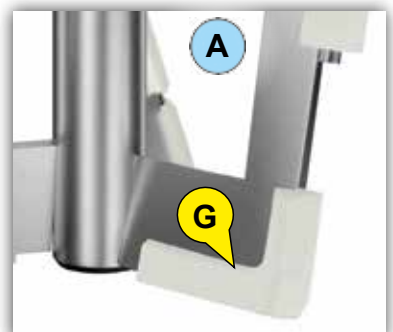
– **Substitute as follows:**

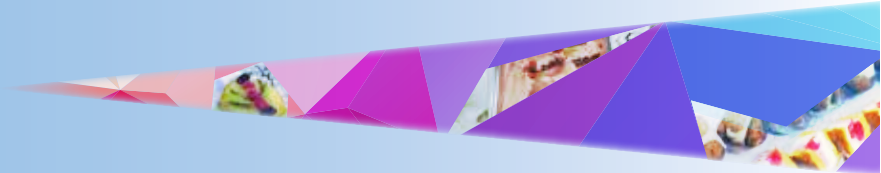
Side scrapers

- Use the tool supplied (D). Insert it under the scraper to be replaced (B) and prise the scraper off by pushing the tool down. You can now remove the scraper from its seat and replace it with a new one (E).
- Position the new scraper (E) on the pin (F) then apply a slight pressure to fit it.

**Lower scraper**

- Pull the slide-on lower scraper (C) off the mixer structure then fit a new one (G).





Replacing the gaskets

S03

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.

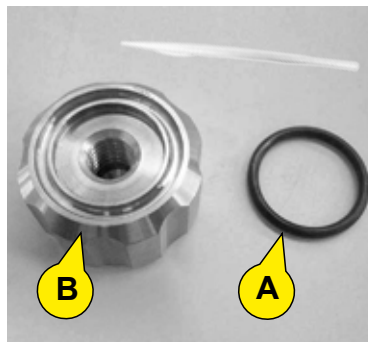


FOR CORRECT GASKET CLEANING, USE A DISPOSABLE CLOTH AND A DETERGENT FOR ITEMS AND MACHINES USED FOR FOOD PREPARATION.



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.



ù

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 “STIRRING” 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: “000”.



Phase 3

Close the cover again and press the “STIRRING” 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:

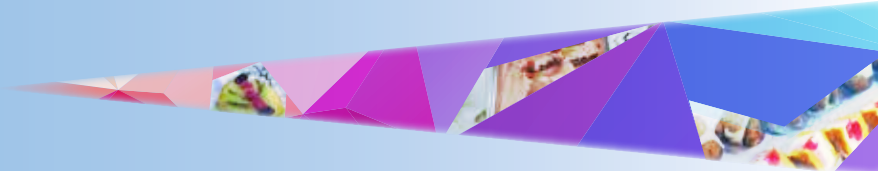
- **Operator:** person trained in the ordinary operation of the machine who performs initial fault-finding and if possible, by following the instructions in Chapter 8 (Routine maintenance), removes the causes of the fault and restores correct machine operation.
- **Technical assistance service:** qualified 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/ INCONVENIENCE	INDICATIONS FOR THE OPERATOR	POSSIBLE CAUSES	SOLUTIONS
<p>! General alarm warning “□□□”:</p> 		<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> ◆ 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. <p>A) For water-condensed machines (except for “CREMAGEL 5”):</p> <ul style="list-style-type: none"> ◆ 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. <p>B) For air-condensed machines:</p> <ul style="list-style-type: none"> ◆ 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”. <p>If the problem cannot be solved, contact the Technical Assistance Service.</p>

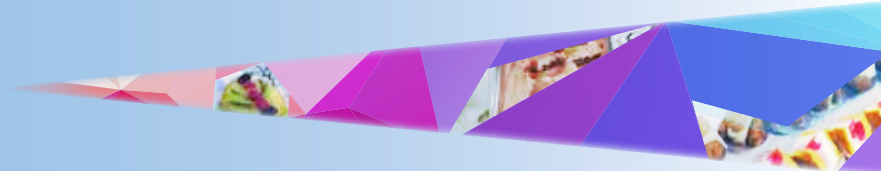








FAULT/ INCONVENIENCE	<p>! General alarm warning “□□□□”:</p> 	INDICATIONS FOR THE OPERATOR	<p>POSSIBLE CAUSES</p> <ul style="list-style-type: none"> ● A fuse designed to protect the auxiliary electrical system has blown. ● Current overload in the compressor electrical circuit. The electric protection device for the refrigeration system compressor tripped. ● 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. ● Mechanical overload in the mixer motor. The electric protection device for the machine motor tripped. 	SOLUTIONS
				<ul style="list-style-type: none"> ◆ 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. ◆ 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. ◆ Switch off the machine and contact the Technical Assistance Service. <div data-bbox="560 271 687 954"> <p>Note: In some cases you may need to wait for up to 30 minutes for the thermal protection devices to cool down.</p> </div> <ul style="list-style-type: none"> ◆ 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. <div data-bbox="1015 271 1142 954"> <p>Note: In some cases you may need to wait for up to 30 minutes for the thermal protection devices to cool down.</p> </div>



FAULT/ INCONVENIENCE	INDICATIONS FOR THE OPERATOR	POSSIBLE CAUSES	SOLUTIONS
<p>! Alarm warning “A--”</p> 		<ul style="list-style-type: none"> ● Faulty heat transfer fluid temperature probe (interrupted or out of tolerance) and/or related wiring damaged. The heat transfer fluid temperature probe signals a temperature higher than the safety limits. ● Due to a leak, or because the machine was laid horizontally or overturned during transportation (SITUATIONS WHICH MUST ALWAYS BE AVOIDED), air bubbles may have formed in the heat transfer fluid system, therefore the pump cannot make the fluid circulate correctly. ● Fault in the heat transfer fluid pump in the machine heating system. 	<ul style="list-style-type: none"> ◆ <i>Contact the Technical Assistance Service.</i> ◆ <i>Contact the Technical Assistance Service.</i>
<p>! “AEE” alarm warning</p> 		<ul style="list-style-type: none"> ● Faulty heat transfer fluid temperature probe (short circuit) and/or related wiring damaged. The heat transfer fluid temperature probe signals a temperature lower than the safety limits. 	<ul style="list-style-type: none"> ◆ <i>Contact the Technical Assistance Service.</i>
<p>FAULT/ INCONVENIENCE</p>	<p>INDICATIONS FOR THE OPERATOR</p>	<p>POSSIBLE CAUSES</p>	<p>SOLUTIONS</p>

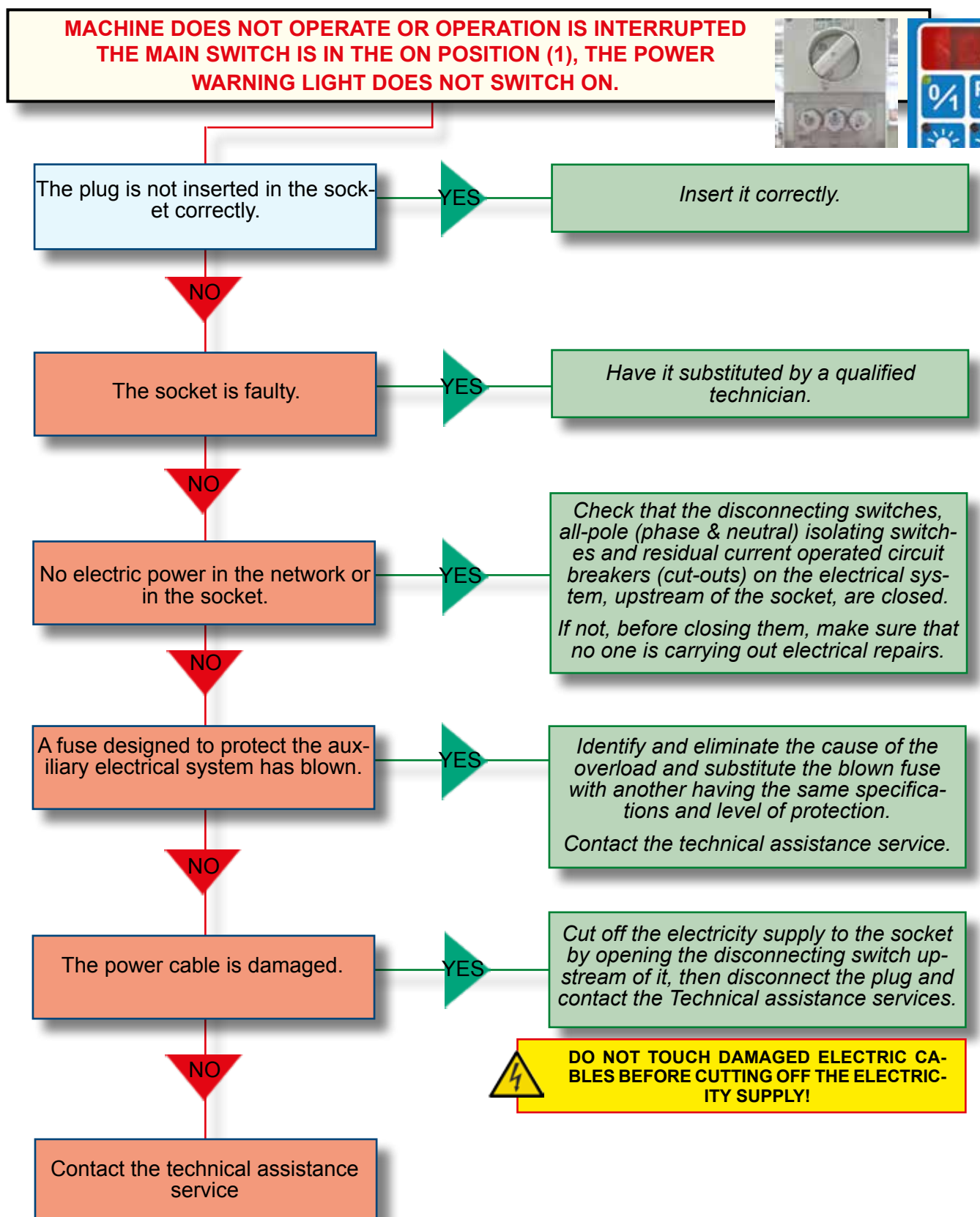


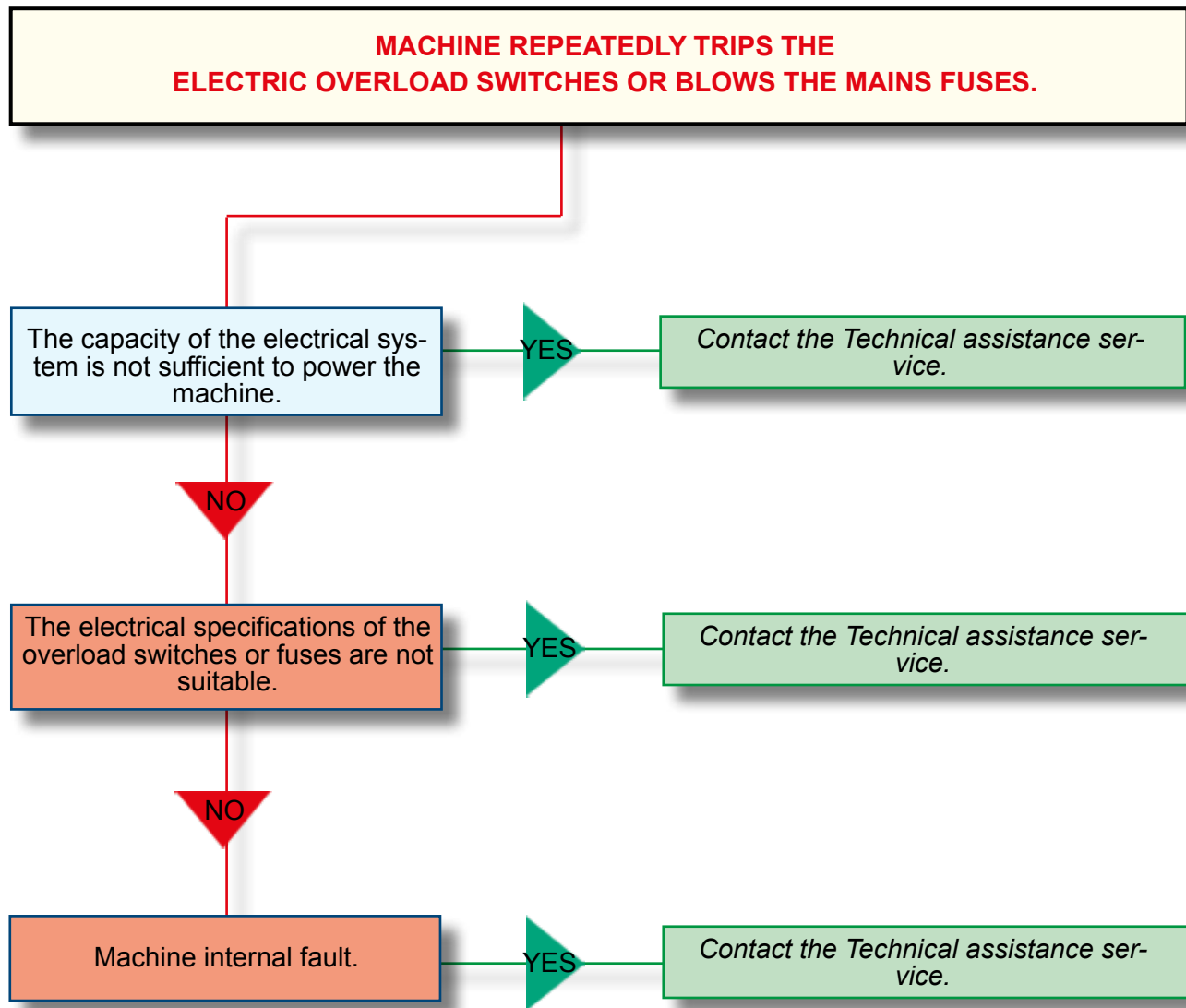
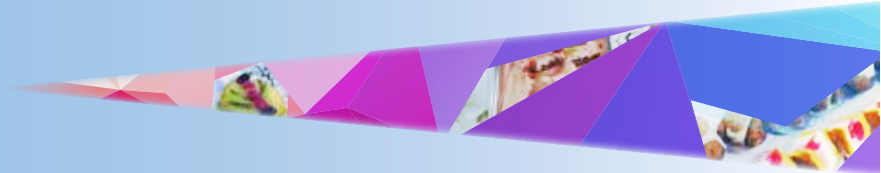
<p>! "PEE" alarm warning</p> 		<ul style="list-style-type: none"> • The cylinder temperature probe signals a temperature lower than the safety limits. Faulty temperature probe (interrupted or out of tolerance) and/or related wiring damaged. • The control circuits do not allow disconnection of power for 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). 	<ul style="list-style-type: none"> ◆ <i>Contact the Technical Assistance Service.</i> ◆ <i>Contact the Technical Assistance Service.</i> ◆ <i>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".</i>
<p>! "P.." alarm warning</p> 		<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> ◆ <i>Contact the Technical Assistance Service.</i>

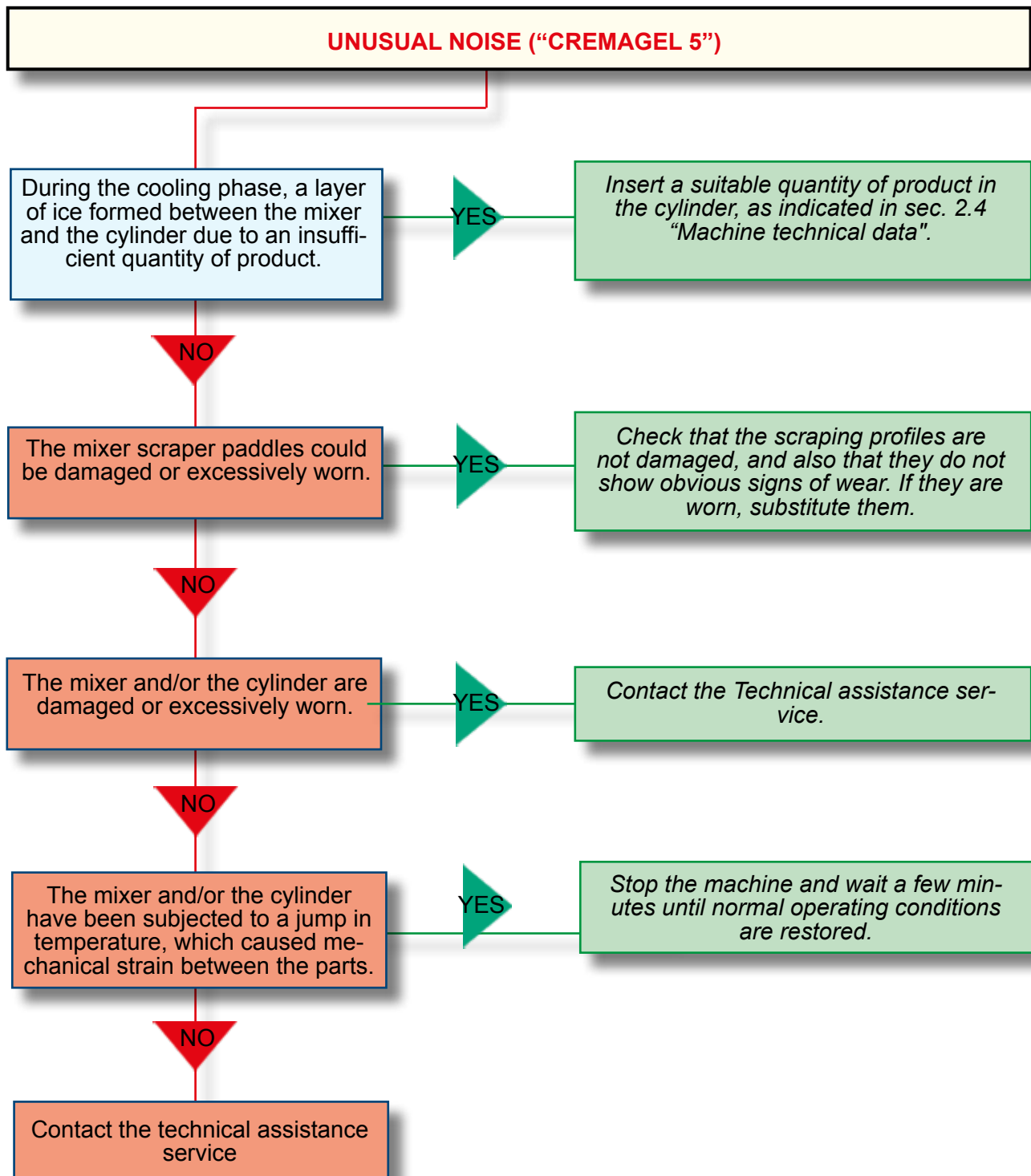


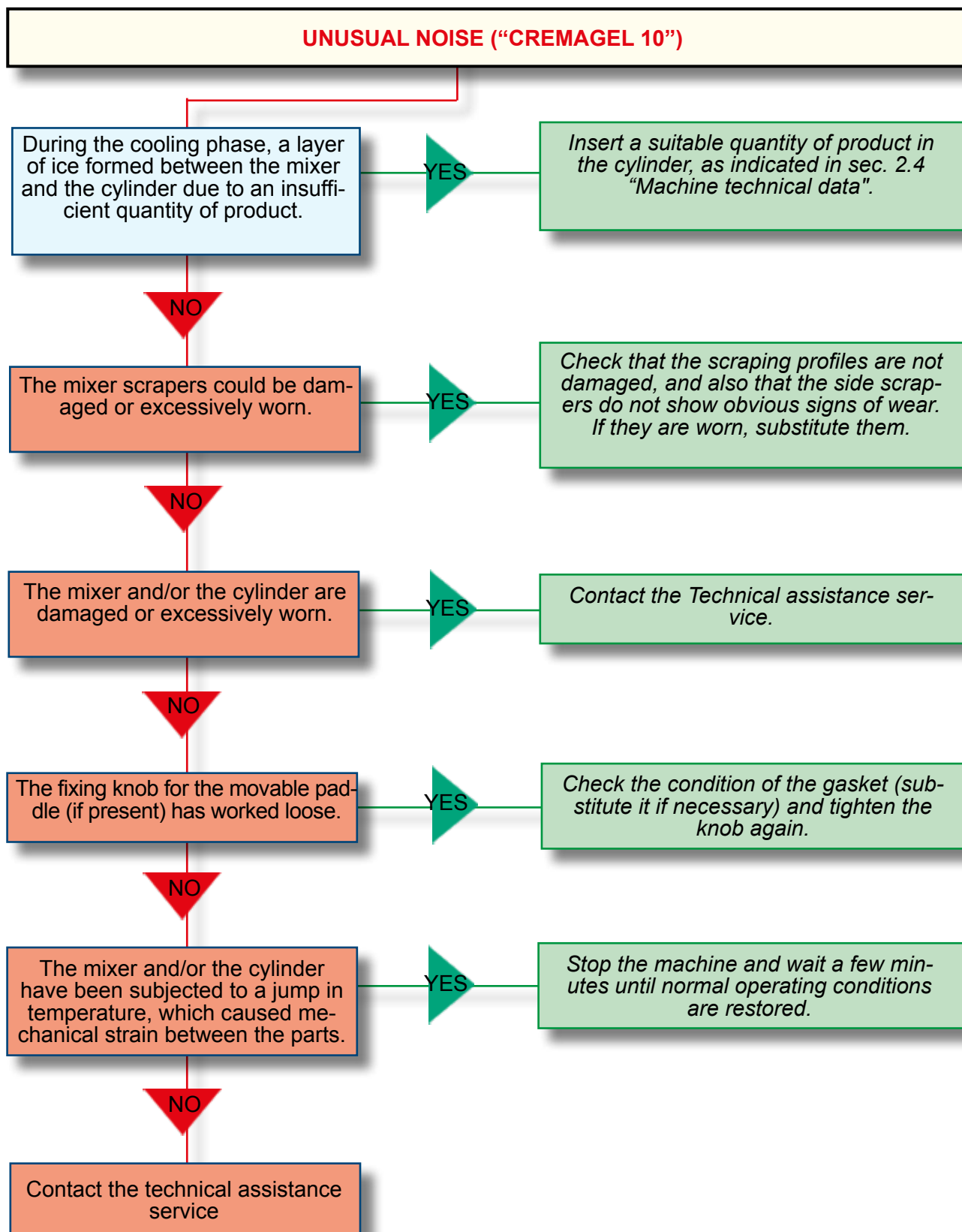
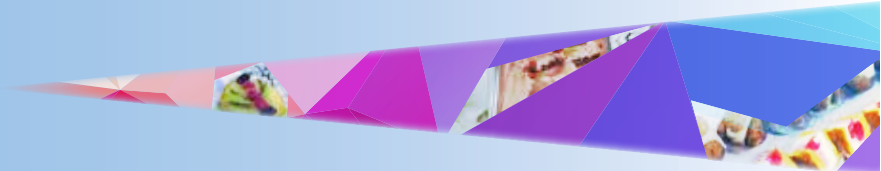
8.2 Troubleshooting – flowchart

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











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 is water-condensed, 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 WATER-CONDENSED MACHINE 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 an air-condensed machine 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 REFRIGERATION SYSTEM.

10 DECOMMISSIONING THE MACHINE




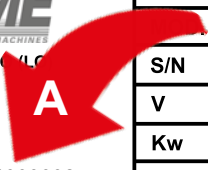
10.1 Description of method of disposal

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, SUPPLYING THE NUMBER (A) ON THE MACHINE IDENTIFICATION PLATE.

 26845 CODOGNOLLO ITALIA  A.E.E. IT07111000002	CODE			 
	S/N	ANNO		
	V	Hz	Ph	
	Kw	A		
	GAS R	gr.		

CONTACT "REMEDIA":

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

INFORMATION FOR USERS

in accordance with art. 13 of Legislative Decree No. 151 of 25 July 2005, "Implementing Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, on reducing the use of hazardous substances in electrical and electronic equipment, and on waste disposal"

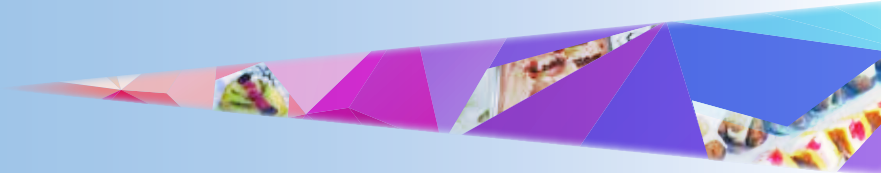
The crossed out wheelie bin symbol on the equipment or on its packaging indicates that the product, at the end of its lifetime, must be collected separately from other types of waste.

Separate collection of this equipment when it has reached the end of its lifetime is organised and managed by the producer. Therefore, any user wanting to dispose of this equipment must contact the producer and follow the system adopted by the producer to allow separate collection of the equipment when it has reached the end of its lifetime.

Suitable separate collection to allow the decommissioned equipment to be sent for recycling, treatment and disposal in an environmentally friendly way, helps to avoid possible harmful effects on the environment and health and promotes re-use and/or recycling of the materials used to make the equipment.

Illegal disposal of the product by the owner will be punishable with the administrative sanctions envisaged by the regulations in force.

TELME SPA - 26845 Codogno (Lo)
A.E.E. IT07111000002



Note:

TELME S.p.A.

Via S. Pertini, 10 - 26845 Codogno (LO)

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Note:



Made in Italy



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