

# INSTRUCTIONS FOR INSTALLATION, USE AND MAINTENANCE

CE

Ed 04/08

GB



## MIXGEL 30 - MIXGEL 50



technogel  
spa

MACCHINE E IMPIANTI  
PER GELATO

ICE CREAM EQUIPMENTS  
AND MACHINES

Sede (factory): Via Boschetti, 51 - 24050 Grassobbio (BG) ITALY  
Tel.: + + 39 035 4522062 Fax: + + 39 035 4522682

Website: [www.technogel.com](http://www.technogel.com)  
E-mail: [info@technogel.com](mailto:info@technogel.com)

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## Introduction

Thank you for choosing our product. We strongly advise you to read this instruction manual carefully so as to ensure trouble-free machine performance.

The descriptions and illustrations in this manual are not to be taken as binding; **TECHNOGEL spa**, therefore, reserves the right, at any time and without prior warning, to make changes to parts of the machine if they should they be considered necessary for any reason, whether it be for production or commercial purposes.

### ⇒ Persons qualified to carry out the work depending on the type of work involved

Please note the symbols given at the side of each operation described for installation, use and maintenance:



= Technician



= User

Where the symbol of the Technician is indicated (an electrician, plumber or mechanic) this means that the operations described can be carried out exclusively by these people. If the user attempts to carry out these operations this could prove dangerous and he/she must refrain from doing so.



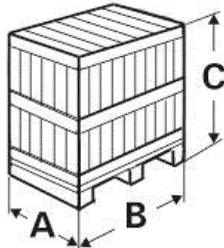
### ⇒ Installation and first start-up

The installation and first startup of this machine must be carried out by a **TECHNOGEL** technician or one with **TECHNOGEL authorization**.

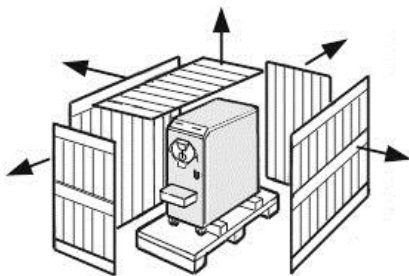
**TECHNOGEL spa DECLINES ALL LIABILITY FOR INSTALLATIONS OR  
STARTUP CARRIED OUT BY UNAUTHORIZED PERSONS.**



## How to unpack the machine

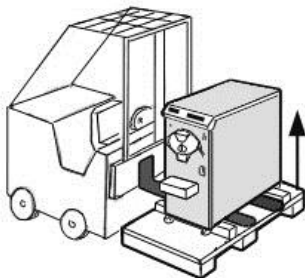


	GROSS WEIGHT	A	B	C
MIXGEL 30 =	390 kg	mm. 730	1030	1730
MIXGEL 50 =	444 kg	mm. 730	1100	1730

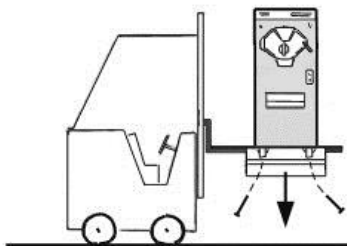


**ATTENTION : OWING TO ITS TALL, NARROW SHAPE, THE MACHINE MAY BE UNSTABLE DURING HOISTING.**

Remove all the side and top wooden panels



Lift the machine using a fork lift truck, inserting the forks between the machine base and the crate base



Under the crate base unscrew the four bolts that hold the machine tightly in position

**ATTENTION:**

After removing these bolts, the base of the crate will drop to the ground.

After removing the crate base, lower the fork lift truck and place the machine on the ground.

The machine can now be moved by means the handles.

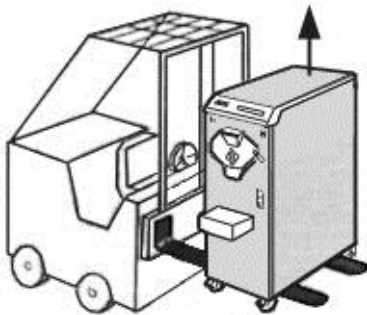
**THE TYPE OF WOOD USED FOR THE PACKING CRATE IS NATURAL SPRUCE, IT HAS NOT BEEN CHEMICALLY TREATED SO IT IS PERFECTLY SUITED FOR RECYCLING.**



## Hoisting the machine



	NET WEIGHT	A	B	C
MIXGEL 30 =	290 kg	mm. 490	800	1350
MIXGEL 50 =	339 kg	mm. 490	940	1435



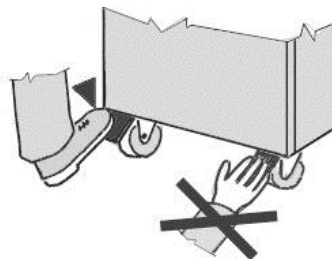
**CAUTION: OWING TO ITS TALL, NARROW SHAPE, THE MACHINE MAY BE UNSTABLE DURING HOISTING.**

Lift the machine using a fork lift truck, inserting the forks from the side, between the front and rear wheels.



Hoist the machine with belts near the front and rear wheels (as indicated in the drawing).

The tie rod lifting the machine must be at the exact centre of the machine.



Move the machine by holding the flange handle in one hand and the corner of the machine in the other.

After positioning the machine, use your feet to lock with the front wheel brakes.

**NEVER USE YOUR HANDS**

## Machine identification

Every machine is given a plate bearing:

- ⇒ machine type
- ⇒ electrical power
- ⇒ serial number
- ⇒ gas type and quantity
- ⇒ voltage and hertz ratings

This plate is located at the back of the machine. Below is the serial plate for this machine.

The image shows a metal identification plate for a Technogel machine. The plate is rectangular with rounded corners and four mounting holes. At the top, there is a logo consisting of a stylized 'T' inside a circle, followed by the word 'technogel' in a lowercase, sans-serif font. Below the logo, there are several rows of text and input fields:

- MACCHINA TIPO** / **MACHINE TYPE**: A rectangular box for the machine type.
- MATRICOLA N.** / **SERIAL NUMBER**: A rectangular box with 'N.' written inside, for the serial number.
- ANNO** / **YEAR**: A rectangular box for the year.
- VOLTAGGIO** / **VOLTAGE**: A rectangular box with 'V' on the left and 'A' on the right, for voltage and hertz ratings.
- POTENZA** / **POWER**: A rectangular box with 'KW' written inside, for power.
- GAS FREON**: A rectangular box with 'R' on the left and 'Kg' on the right, for gas type and quantity.

At the bottom of the plate, there is a white rectangular area containing the following text:

Via Boschetti 51, GRASSOBBIO (BG) ITALIA  
Tel. 035-4522062 Fax 035-4522682

To the right of this text is the CE mark.

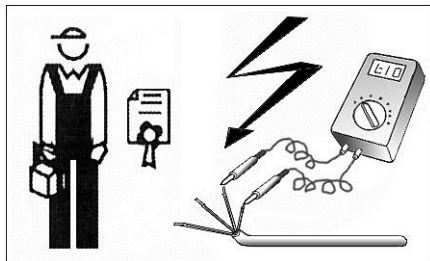
When ordering spare parts and requesting technical assistance, always quote the information given on the serial plate:

<b>MACHINE TYPE</b>	<b>MIXGEL</b>
<b>SERIAL NUMBER</b>	
<b>VOLTAGE</b>	<b>VOLT      HZ</b>

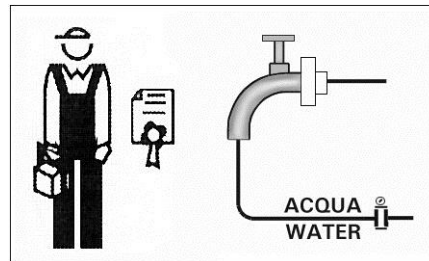
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# MACHINE POSITIONING AND UTILITIES

People authorized only:



**ELECTRICIAN**



**PLUMBER**

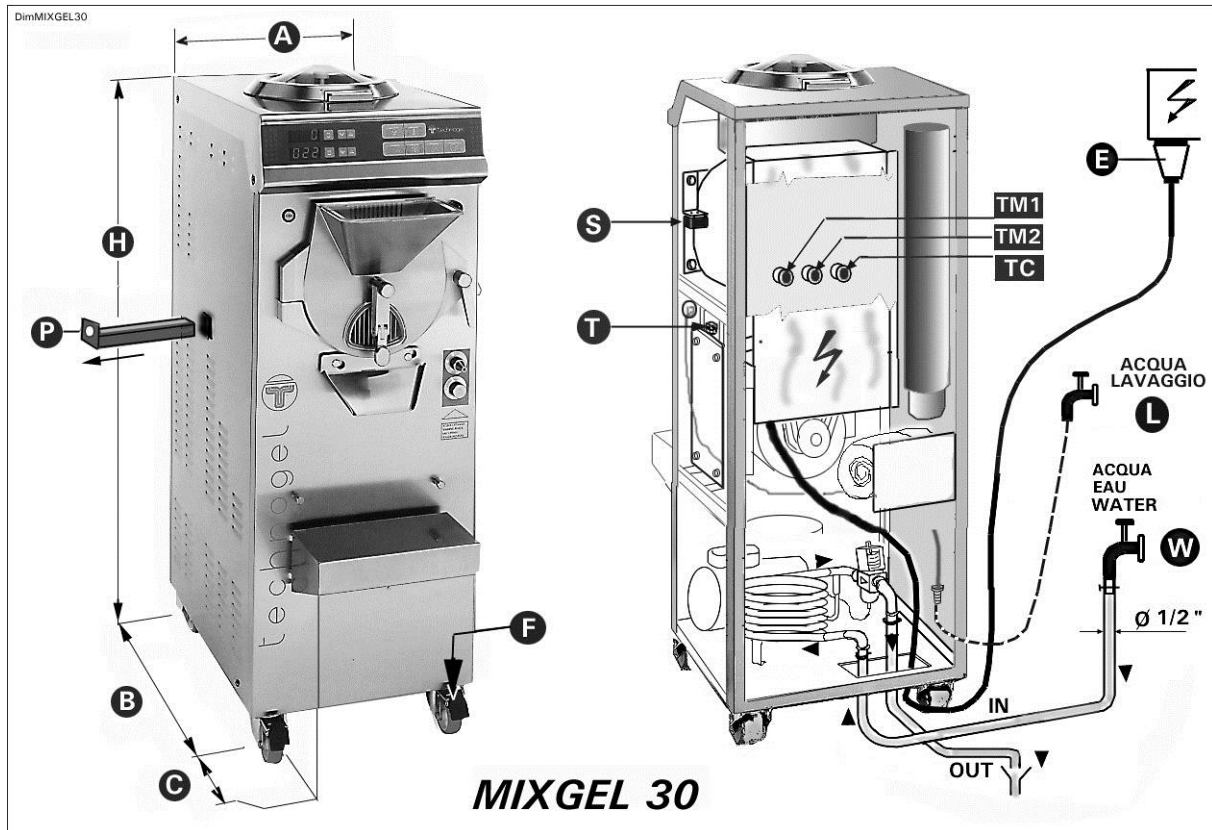




## Dimensions and different facilities : MIXGEL 30

Dimensions and weight:

A – width	B – depth	C	H – height	Weight
490 mm.	600 mm.	200 mm.	1350 mm.	290 Kg.



### WARNING:

The machine does not have to be anchored to the floor to ensure satisfactory operation. No particular technical precautions need be taken to limit transmission of vibrations.

The installation requires the following operations:

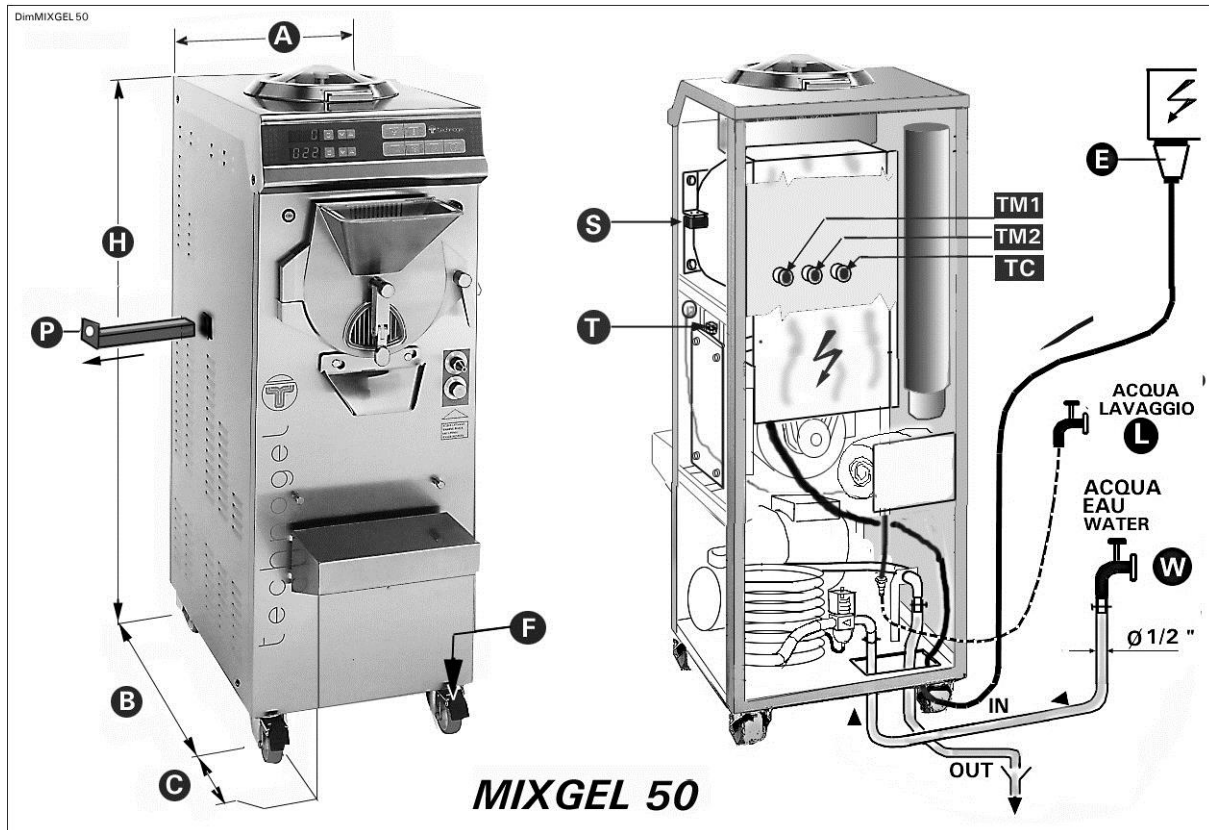
- ⇒ A space of at least 10" (25 cm) must be left round the machine to ensure any maintenance work can be carried out easily.
- ⇒ Make sure the machine is steady by blocking the brakes (F) of the front wheels using the feet (**DO NOT USE THE HANDS**).
- ⇒ Connect the hidro-system with the water inlet and outlet (see diagram above point W). For the pressure and consumption data please see page 11 (**MIXGEL 30**).
- ⇒ Connect the electric system (see diagram above point E). For the power and absorption data please see page 10 (Table A – **MIXGEL 30**).



## Dimensions and different facilities : MIXGEL 50

Dimensions and weight:

A – width	B – depth	C	H – height	Weight
490 mm.	740 mm.	200 mm.	1435 mm.	339 Kg.



### WARNING:

The machine does not have to be anchored to the floor to ensure satisfactory operation. No particular technical precautions need be taken to limit transmission of vibrations.

The installation requires the following operations:

- ⇒ A space of at least 10" (25 cm) must be left round the machine to ensure any maintenance work can be carried out easily.
- ⇒ Make sure the machine is steady by blocking the brakes (F) of the front wheels using the feet (**DO NOT USE THE HANDS**).
- ⇒ Connect the hidro-system with the water inlet and outlet (see diagram above point W). For the pressure and consumption data please see page 11 (**MIXGEL 50**).
- ⇒ Connect the electric system (see diagram above point E). For the power and absorption data please see page 10 (Table A – **MIXGEL 50**).



## Electric installation

The electrical installation, which the machine is connected to, must be carried out by a **skilled electrician** in compliance with regulations and the Laws in force. An efficient electrical installation with earthing is most important to ensure your machine works perfectly.

Fit a suitable wall switch: we strongly recommend fitting an automatic differential switch. See table (A) for power rating and absorption details.

Check that the mains voltage is the same as the machine rating, shown on the serial number plate (see page 6).

The line cable of the machine has 4 wires when the machine is **220 V**: and 5 wires when it is **380V** or **415 V**.

- When the cable has **4** wires, the **yellow/green** wire is the earth and the other three are the three **phases**.
- When the cable has **5** wires, the **yellow/green** wire is the earth - the **blue** wire is neutral - the other three are the three **phases**.

### - TABLE -A-

<b>MIXGEL 30</b>		V.220 50 HZ	V.220 60 HZ	V.200 50/60HZ	V.400 50 HZ
Total power	<b>kW</b>	<b>7.15</b>	<b>8</b>	<b>7.15</b>	<b>7.15</b>
Max. Absorp.	<b>A</b>	<b>25</b>	<b>29</b>	<b>25</b>	<b>15</b>
Line cable					
N° of wires & cross sections		<b>4 x 6 mm<sup>2</sup></b>	<b>4 x 6 mm<sup>2</sup></b>	<b>4x6 mm<sup>2</sup></b>	<b>5x4 mm<sup>2</sup></b>

<b>MIXGEL 50</b>					
Total power	<b>kW</b>	<b>9,3</b>	<b>9,3</b>		<b>9,3</b>
Max. Absorp.	<b>A</b>	<b>32</b>	<b>32</b>		<b>21,5</b>
Line cable					
N° of wires & cross sections		<b>4 x 6 mm<sup>2</sup></b>	<b>4 x 6 mm<sup>2</sup></b>		<b>5 x 4 mm<sup>2</sup></b>

*It is advisable to check the efficiency of your electricity supply , especially the earth and safety systems.*

**TECHNOGEL spa CANNOT ASSUME ANY RESPONSIBILITY FOR ACCIDENTS CAUSED BY IMPROPER INSTALLATION OR FAULTY WIRING**



## Water connection

The refrigeration system has a water-cooled condenser. A connection for the hot or cold water pipe exists. It is useful for washing the machine. Its tap and nozzle are on the front of the machine.

Connect the mains hose to the fitting that reads " **ENTRATA ACQUA - WATER INLET** ".  
The drain hose must be connected to the fitting that reads " **USCITA ACQUA - WATER OUTLET** ".

The connection plates and fittings are inside the machine: to access these, remove the rear panel.

To connect the machine to the mains, we recommend using a rubber hose suitable for pressure of up to **10 bars** with an internal diameter of about 15 mm (matching the fittings supplied with the machine).

If, for any reason, the plates indicating water inlet and outlet are illegible, please note that the water inlet hose is fitted to the pressure-switch valve.

### WATER PRESSURE AND CONSUMPTION

If the machine is using mains water, check that the incoming water has a pressure of at least **1,5 bar**.

If the water pressure is more than **5 bar**, fit a pressure reducer to the system, to reduce this to **4 bar**.

Average water consumption (when the refrigerating unit is on) is:

- **MIXGEL 30 = 150/180 litres/hours \***
- **MIXGEL 50 = 200/230 litres/hours \***

\* depending on the temperature of the incoming water.

**If the water contains impurities, fit a purifying filter to avoid scaling and/or damage to the pressure-switch valve.**





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**ACCEPTABLE AND UNACCEPTABLE USAGE  
MACHINE OPERATION CONDITIONS  
SAFETY WARNING**





## ACCEPTABLE AND UNACCEPTABLE USAGE

All pasteuriser /mixer machines in TECHNOGEL's MIXGEL series have been designed exclusively for mixing ice-cream.

*Use of these machines for any products other than those intended is entirely at the Customer's own risk.*

### ⇒ Machine operation conditions

Here below are the **minimum** and **maximum** doses of mixture that the different machines are able to process; the doses are expressed as litres of mixture to put into the machine each time:

	Minimum load	Maximum load
<b>MIXGEL 30</b>	<b>3 litres</b>	<b>6 litres</b>
<b>MIXGEL 50</b>	<b>3 litres</b>	<b>8 litres</b>

**WE STRONGLY ADVISE YOU TO OBSERVE THE MINIMUM AND MAXIMUM DOSES GIVEN ABOVE SO THAT YOUR MACHINE WILL MAKE AN EXCELLENT PRODUCT IN TOTAL SAFETY.**

**TECHNOGEL spa CANNOT BE HELD LIABLE FOR DAMAGE CAUSED BY EXCEEDING THE MAXIMUM RECOMMENDED DOSES**

### ⇒ Initial start-up



## CAUTION IMPORTANT

**TO CARRY OUT INITIAL START-UP, PRESS THE "START" BUTTON AND THEN WAIT FOR AT LEAST 60 MINUTES BEFORE ACTIVATING THE REFRIGERATOR COMPRESSOR.**

**IF THE MACHINE IS DISCONNECTED FROM THE POWER SUPPLY FOR ONE DAY OR MORE, AFTER PRESSING THE "START" BUTTON, IT IS NECESSARY TO WAIT FOR AT LEAST 60 MINUTES BEFORE ACTIVATING THE REFRIGERATOR COMPRESSOR.**

**IF THE MACHINE IS NEVER DISCONNECTED FROM THE POWER SUPPLY NO WAITING PERIOD IS NECESSARY.**

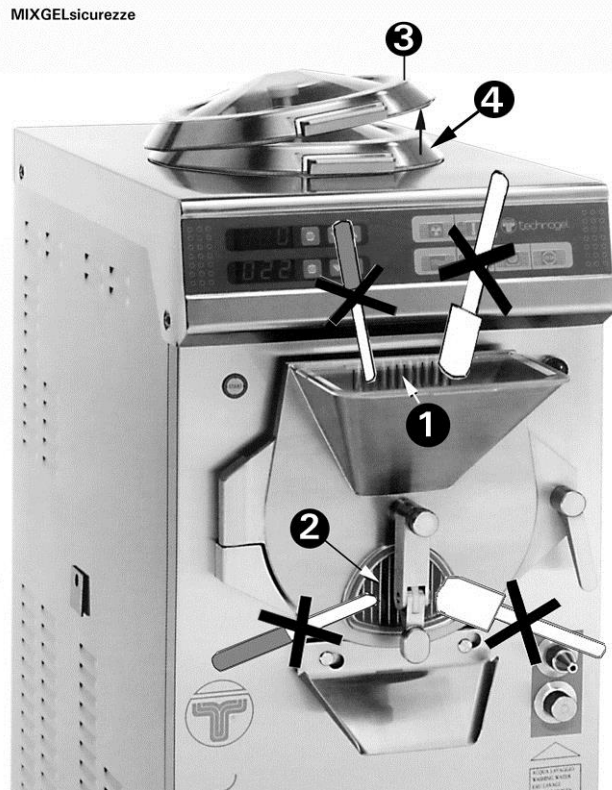


## Safety warning

Before starting the machine, check that the safety devices (1) (hopper protection grill) and (2) (exit protection grill) are mounted and working.

When the machine is in use, do not touch the edge of the tank (4) with the hands or any other part of the body as it is extremely hot. The boiler cap must be raised by means of the handle (2).

**CAUTION:** when the lid (3) is raised while the machine is in operation, the stirrer inside the heater must stop. Check that it does so.



### WARNING

Tampering or reducing safety devices (1) and (2), can cause serious injury to the operator

#### While the machine is operating:

**NEVER** introduce foreign bodies into the hopper when this is in use, *eg. scrapers - knives - hose piping, etc.*, as these can damage the machine and may injure the operator.

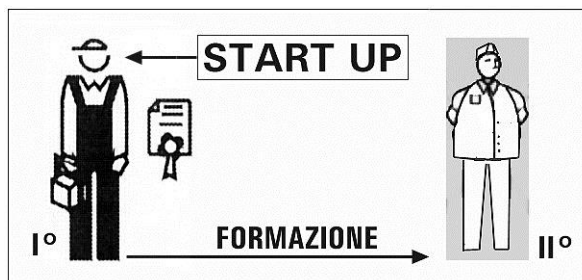
Never insert *scrapers* or *knives* between the bars in the exit while the ice-cream is flowing out.

**TECHNOGEL CANNOT BE HELD LIABLE FOR DAMAGE AS A RESULT OF TAMPERING WITH THE MACHINE SAFETY DEVICES.**



# FUNCTIONS OF THE MACHINE WITH PRELIMINARY CHECKING AND CONTROL

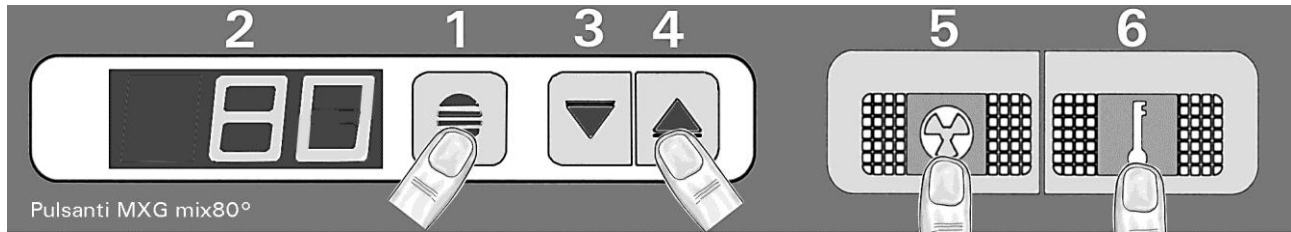
*The explanation of the machine functions, preliminary checking and controls should be carried out by TECHNOGEL's Technician together with the Operator who will be using the machine after appropriate training has been given.*





## Console control functions – “Pasteurizing” MIX section

### ➤ How to set the pasteurization temperature



After connecting the keyboard to the power supply by pressing pushbutton (IG), set the pasteurization temperature indicated on display (2) while holding down key (1). To increase the value, press pushbutton (4), to decrease it, press (3).

**PASTEURIZATION TEMPERATURE = 80° C**  
**MAXIMUM TEMPERATURE = 85° C**

When button (1) is released, the temperature set is memorized and the display shows the temperature of the mixture which is inside the tank (V) at that particular moment in time. To see the pasteurization value set at any time, press button (1).

### ➤ Operation of the “Pasteurizer”:

Press key (5) to get stirring (A) of pasteurization tank (V).

Press key (6) to get stirring and heating with an alarm which sounds once the desired temperature is reached. The alarm is different from the freezing alarm and sounds when the mix is pasteurized. Heating then stops while stirring continues.

To deactivate the alarm, turn off key (6) and turn on button (5) if you wish to continue with stirring. Turn off pushbutton (6) to stop the entire process.



### IG – Main switch:

**on** connects the machine control keyboard to the power supply so the pushbuttons can be used  
**off** disconnects the power supply to the keyboard so the pushbuttons do not operate

### RM – Tank faucet control switch

**Turn to the right** (clockwise) the switch lights up and the conduit **opens** so the pasteurized mix comes down for freezing in the batch freezer  
**turn to the left** (anticlockwise) the conduit **closes** and the switch does not turn off until the conduit has closed completely

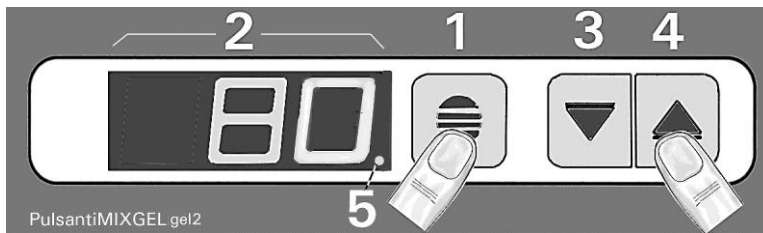
### CAUTION:

If the handle of flange (MF) has not been properly closed or flange (F) is open, switch (RM) will not operate and the conduit will not open.

**Do not pour the mixture into the tank if switch (RM) is on.**

## ⇒ Console control functions *GEL – batch freezing*

### ➤ Instructions for setting the texture of the ice-cream:



The number (expressed as a percentage) which appears on the display (2), indicates the force exerted by the turbine in mixing the ice-cream and can vary from **0%** (mixer turbine motor stopped) to **60%** (motor in operation with liquid mixture) to **100%** (maximum force the motor can produce).

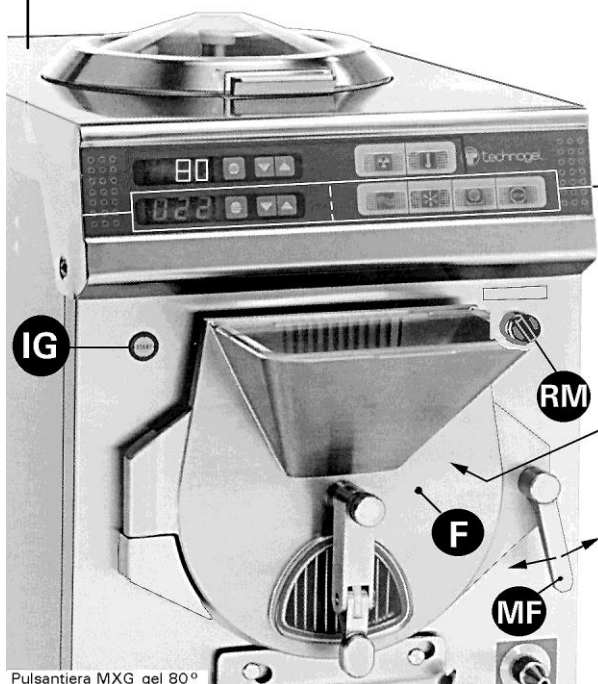
This number varies (the value rises) the thicker the texture of the ice-cream: i.e. the harder the ice-cream, **the higher the number indicated on the display**.

This value when the ice-cream is ready can range from **70** to **100%** depending on the model (**MIXGEL30 - MIXGEL50**). The right value for your machine will be obtained by experimenting with a first freeze-batch.

Whilst holding down key (1), press key (4) until the display gives the maximum value (**100**). Carry out a “batch freeze” and when the ice-cream is to your liking look on the display to see the number indicated (e.g. **78**). While the machine is in operation, hold down key (1) and press key (3) so that the value on the display, regulated on **100**, drops to tally with the number read for the ice-cream prepared (**78**). The LED (5) will flash intermittently for 1.5 seconds and immediately afterwards you will hear an alarm sound (different from the pasteurization alarm). It will sound for 10 seconds to warn you that the ice-cream is ready for extraction (while the alarm is sounding the freezing stops whereas stirring continues). If the ice-cream is not extracted the machine will start to freeze again and will once again reach the hardness value set. At this point it will stop, the alarm will sound again as described above, and the process will then continue indefinitely.

This is the right texture for your ice-cream and the machine will then repeat it endlessly, without any need to reset it each time.

If during subsequent batch freezings the ice-cream does not seem hard enough, or is too hard, the hardness value can be regulated even when the machine is in operation. Hold down key (1), increase the value to (**80**) using key (4) (to get harder ice-cream) or decrease to **76** using key (3) (to get softer ice-cream).



Generally speaking it is normal for the hardness parameters to vary slightly from cream flavoured ice-cream to fruit ice-cream and from minimum to maximum quantities frozen.

#### CAUTION:

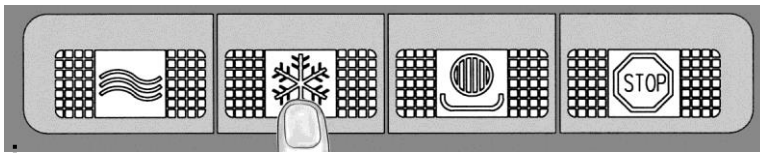
When varying the hardness **never change the value by more than 2% at a time**.

Depending on the model of machine (MIXGEL30, MIXGEL50) or the type of mix which is to be frozen, it is possible and quite normal for a value to be set which is too high for the machine to reach, even though the value is below 100. If this occurs, read the maximum value achieved and set this value as the hardness for that particular type of ice-cream.



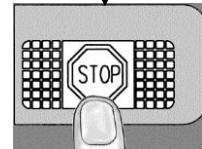
## Control console functions – GEL batch freezing section

### ➤ Operation of batch freezing keys



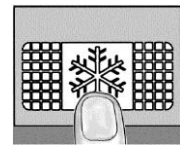
← **Batch freezing control keyboard:**

**STOP** key : when the console is connected to the power supply this key automatically lights up.  
Press this key to stop the machine at any time.



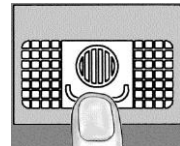
**ICE-CREAM** key: press to produce ice-cream.

Start-up of the stirrer motor at low speed and the refrigeration compressor are separate. The stirrer motor starts first and then after a few seconds the refrigerator compressor is activated.

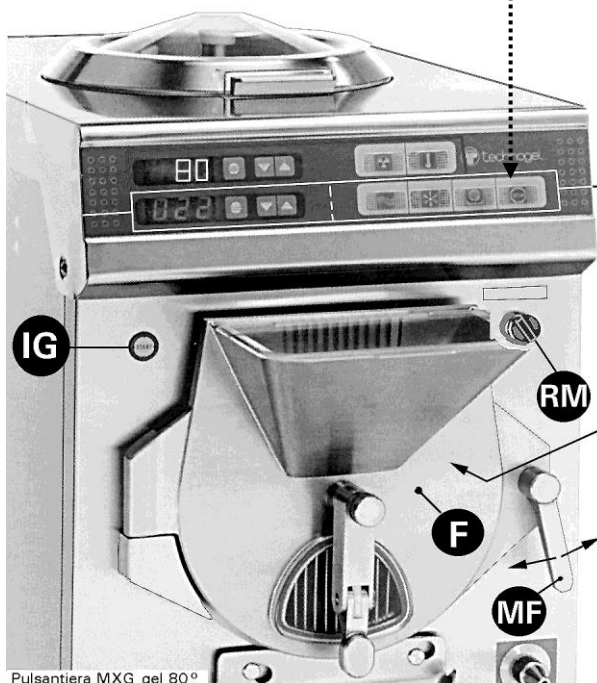
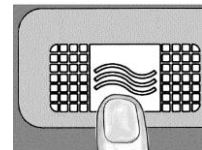


**ICE-CREAM OUTLET** key: press this key to empty the machine of ice-cream rapidly.

In this position the stirrer motor rotates at high speed.  
In this position the refrigerator compressor will not operate.



**WASHING** key: press this key to start the stirrer motor at high speed. It will stop automatically after 20 seconds.



Pulsantiera MXG gel 80°

#### CAUTION:

If the **(IG)** button is not connected (light on), the keyboard and display remain off.

If the flange handle **(MF)** is not properly closed, the keyboard will not turn on and will not accept commands.

If flange **(F)** is open, the keyboard will remain off and will not accept commands.

## Console control functions

### Instructions for changing Operational for ice-cream production on the machine

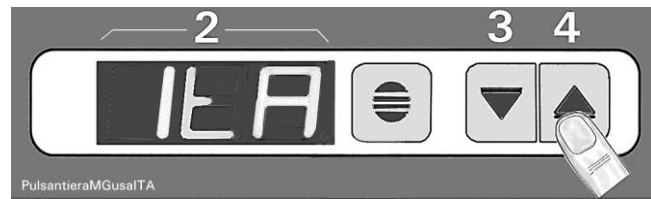
#### ➤ “*ITA*” Mode (Standard most commonly-used Mode) :

When you press the **ICE-CREAM** key the dasher turbine will rotate at low speed.



#### How to insert “*ITA*” Mode :

Press key **4** for four seconds and display **2** will give “*ItA*”.  
Release key **4**, and the operational Mode is memorized.



**ItA**

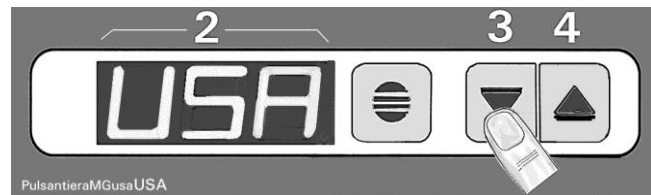
#### ➤ “*USA*” Mode :

When you press the **ICE-CREAM** key the dasher turbine will rotate for about 10 seconds at low speed, for about 3 minutes at high speed and again at low speed till the end of the cycle.



#### How to insert “*USA*” Mode :

Press key **3** for four seconds and display **2** will give “*USA*”.  
Release key **3**, and the operational Mode is memorized.



**USA**

#### CAUTION:

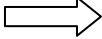
For each Mode, *ItA* or *USA*, set the texture of the ice-cream you wish to produce as described on page 19.

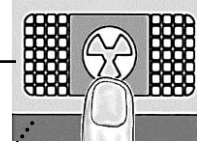
***Before starting production, press the appropriate key (3) or (4) to find which Mode has been set.***



## Checking and control before starting production

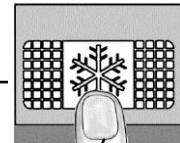
### ➤ Checking efficient operation of safety device on pasteurizer lid (CV)

Connect console to the power supply with switch (IG) – Press stirring key  
 - Lift the lid (CV).  **The stirrer (A) must stop**  
 When the lid is closed, the stirrer starts up again



### ➤ Checking efficient operation of safety device on flange (F)

Press ICE-CREAM key – Rotate handle (MF) anticlockwise and then pull it outwards –  
**The mixer turbine inside the machine will block immediately and the control console turns off** – Close the flange locking the handle and the control console will turn on again switching to **STOP**.

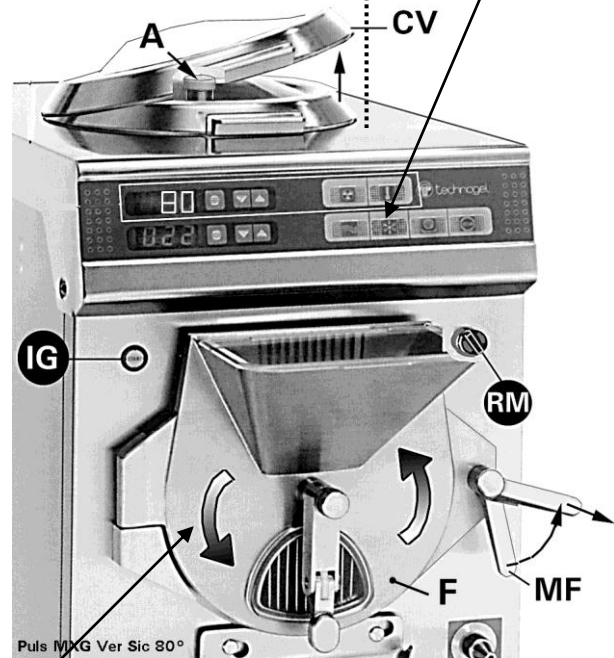


If from a periodic control one or both of the devices proves not to be operating correctly, please call the Technical Assistance Service immediately.

### ➤ Flange Safety Device (F):

**CAUTION:** the device is designed to operate only in an emergency. During normal operation do not use this device to stop the machine. If you wish to stop the machine press the **STOP** key.

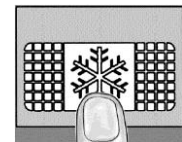
Indiscriminate use of the device could jeopardize its efficiency over the long term which could mean considerable cost in terms of machine stoppage and replacement of the device.



### ➤ Checking the direction of rotation

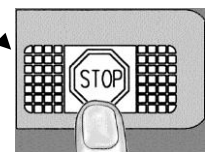
When the machine is empty:

Connect the console to the power supply using the START switch (IG)  
 Checking from the hopper of flange (F), press the ICE-CREAM key and  
 Immediately after the STOP key



The stirrer (turbine) which mixes the ice-cream must rotate **anticlockwise**;  
 if it fails to do so:

- 1 – Disconnect the power supply to the console by pressing key (IG).
- 2 – Detach the machine cable from the power supply and invert any two of the three phases.
- 3 – Reconnect the power supply and try again.

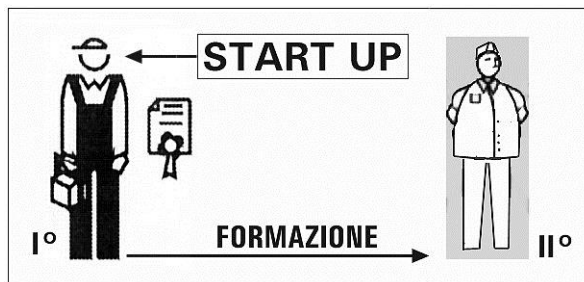


NB – No checking of the pasteurizer stirrer (A) is necessary. As it operates on a single-phase motor it always rotates in the same direction.

---

# START-UP

***START-UP must be carried out by a TECHNOGEL technician together with the operator who will be working on the machine after the appropriate training has been completed.***





⇒ **Machine start-up:**

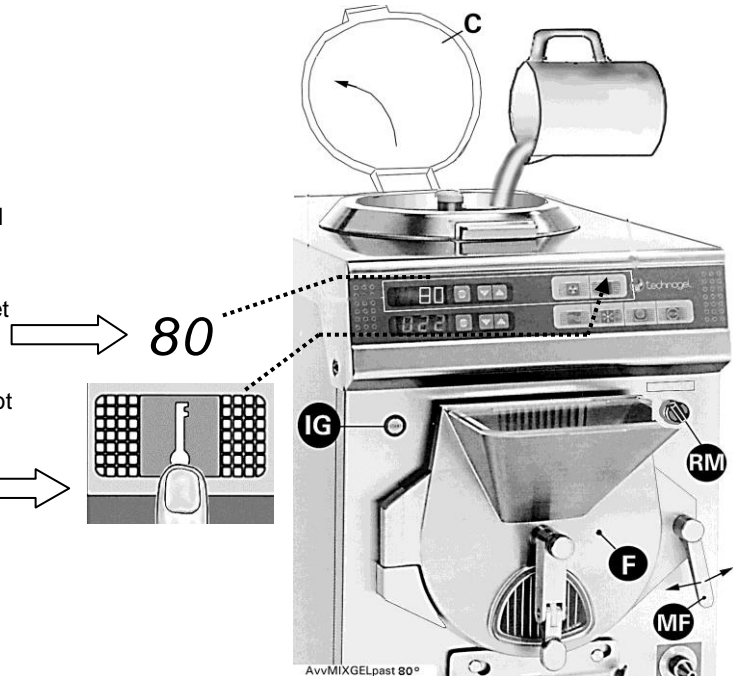
the first time



then

➤ **Pasteurization**

1. Connect the console to the power supply using the **START (IG)** key; this will light up.
2. Check that the switch **(RM)** is off (turned to the left/ conduit closed) and that the handle **(MF)** of flange **(F)** is tightly closed.
3. Open lid **(C)** and pour the dosage for pasteurization (see page 14 for minimum and maximum quantities) into the pasteurization tank.
4. Check that the pasteurization temperature set is **80° C** or whatever other temperature is desired.
5. Close lid **(C)** otherwise the tank stirrer will not start.
6. Press the **Pasteurization** key (stirring+ heating).
7. Wait for the temperature indicated on the display to reach the temperature set.

➤ **Pasteurization and Batch Freezing at the same time****Tips which may prove useful during the first pasteurization batch**

While the dosage poured into the pasteurizer is heating, pour from the hopper of flange **(F)** (as indicated in the figure) a flavour which does not need pasteurizing (e.g. fruit ice-cream) and freeze.

See the next page for instructions on how to proceed.

This will not only save time but will cool down the freezer chamber. When the pasteurized dosage comes out of the pasteurizer in the freezer, it will take less time to cool down.

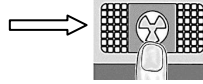
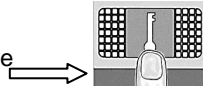
**General tips:**

To avoid wastage, organize your work so that the sequence of flavours you have to produce do not interfere with each other both in terms of colour and aroma. This will avoid superfluous washing between one flavour and the next.



## ⇒ Freezing

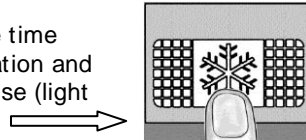
1. When the pasteurization alarm sounds to warn that the dosage has been pasteurized, press the **pasteurization** key to stop the alarm and immediately after press **stirring only**.



2. Check that the hardness setting is as desired (e.g. **78**).

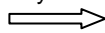


3. Press the **ICE-CREAM** key at the same time opening the conduit between pasteurization and freezing by turning switch (**RM**) clockwise (light on).

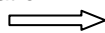


4. While the machine is freezing, check the pasteurization tank. If the mixture has come down, close the conduit by turning switch (**RM**) anti-clockwise and wait for the switch light to turn off.

5. Once the light is off, stop stirring in the tank by pressing

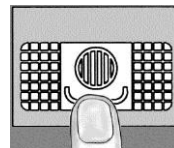
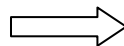


6. and pour another dosage into the pasteurization tank.

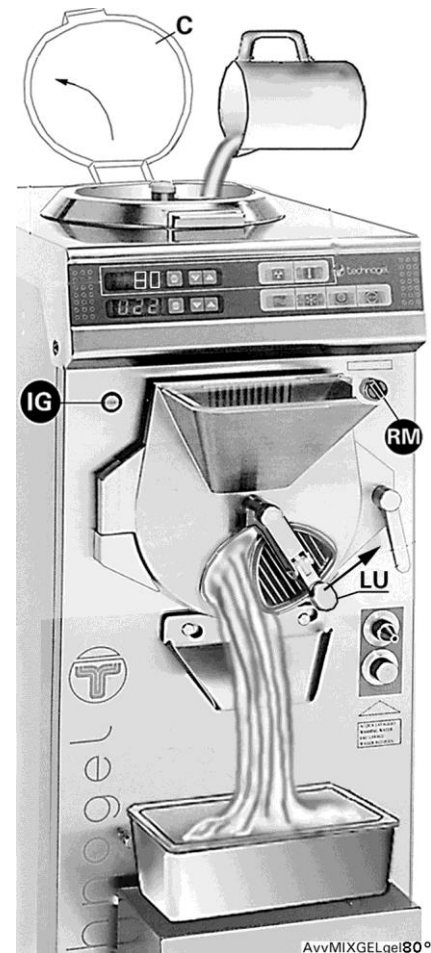
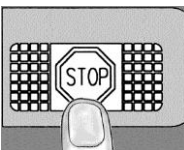
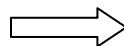


7. When the ice-cream has reached the texture set, the refrigeration compressor stops while the mixer turbine continues to turn and an alarm (different from the one which sounds for pasteurization) sounds for 10 seconds to inform you that the ice-cream is ready to be extracted. If the ice-cream is not extracted, after a 10-second pause the refrigerator compressor will start working again and will take the ice-cream back to the texture value set.

8. To extract the ice-cream, release and pull ejection lever (**LU**) to the right and press the **ICE-CREAM EJECTION** key.



9. Once the ice-cream has been extracted, press the **STOP** key and close the ejection lever (**LU**).



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### Tips:

- When the ice-cream is ready to be extracted, **never** put on **STOP** and then on **ICE-CREAM EJECTION**. Proceed instead directly from the **ICE-CREAM** key to the **ICE-CREAM EJECTION** key.
- If more than one tank is being produced at a time, we recommend extracting the first tank on the **ICE-CREAM** position and then the rest on **ICE-CREAM EJECTION**.





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# MACHINE WASHING



## Washing the machine

	<p><b>DURING THE OPERATIONS FOR WASHING AND SANITIZING THE MACHINE, WEAR THE PROTECTION DEVICES INDICATED:</b></p> <p><b>GLASSES AND RUBBER GLOVES.</b></p> <p><b>(USE RUBBER GLOVES WHICH COVER THE WHOLE FOREARM)</b></p>	
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- 1) Before starting the washing operations make sure the machine is unplugged.
- 2) Open the lid and rinse the tank with hot water at a temperature of 50°:60° C and then drain off.
- 3) Fill the tank half full with hot water 40° ÷ 50°C. Add detergent e.g. DIVER SEY – SU91 available in Italy or DIVER SEY – VK3L available in other countries) using a concentration of the product around between 5 ÷ 10%.
- 4) Plug in the unit and operate the machine for a few minutes ON WASH, Unplug it again.
- 5) Wash carefully using a sponge and **NON-ABRASIVE** materials.
- 6) Dismantle the turbine and clean thoroughly using the same solution used for the freezer tube. Re-assemble the parts and prepare the machine for production.
- 7) Rinse thoroughly using copious clean water minimum 20/30 LT.

### SANITIZING

- 8) Before starting production the machine must be sanitized as follows:  
Prepare a solution with acid (e.g. Percitric or Peracetic) adding **COLD** water (MAX. 25° C) so as to obtain a final concentration of 0.1 ÷ 0.3%. Keep the mixture in the machine for approx. 5 minutes making sure that all the surfaces which will come into contact with the finished product are treated with the solution. Drain and rinse carefully using copious amounts of water.



**CAUTION! DO NOT USE HOT WATER WHEN PREPARING THE ACIDS INDICATED ABOVE.**

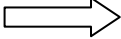
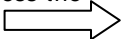


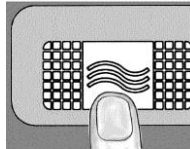
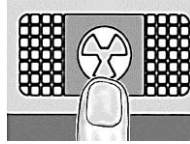
**IMPORTANT: TO PREVENT ANY PROBLEMS OF CORROSION, DO NOT LEAVE THE SANITIZING SOLUTION INSIDE THE MACHINE FOR PERIODS OF OVER 10 MINUTES.**



## Washing the machine

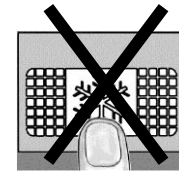
### • Rinsing

1. After the last pasteurization, pour at least 6 litres of water into the tank and press the pushbutton for **stirring only**. This will ensure no crust forms on the walls and will cool the tank at the same time. 
2. Use the switch **(RM)** to make this water go down into the freeze chamber and press the **WASH** key. 
3. After 20 seconds, with the machine stopped, open the evacuation lever **(LU)** and drain away the dirty water into a bucket.

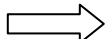
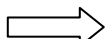


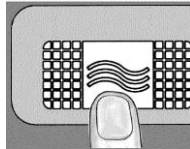
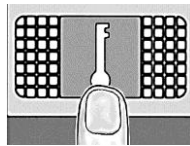
### CAUTION!!

NEVER USE THE "ICE-CREAM" KEY FOR WASHING PURPOSES

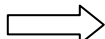
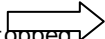


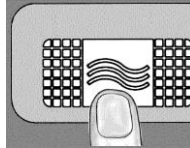
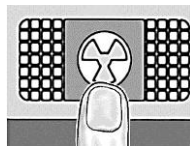
### • Washing

4. Pour other water mixed with detergent into the pasteurizing tank and heat it to pasteurization temperature (**85° C**) by pressing the **pasteurization** key. 
5. Use the **(RM)** switch so the water goes down into the freeze chamber and press the **WASH** key. 
6. After 20 seconds, with the machine stopped, open the evacuation lever **(LU)** and drain away the dirty water into a bucket.



### • Final rinsing

7. Pour more water into the pasteurizing tank and press the **stirring only** key. 
8. Use the **(RM)** switch so the water goes down to the freeze chamber and press the **WASH** key. 
9. After 20 seconds, with the machine stopped, open the evacuation lever **(LU)** and drain away the dirty water into a bucket.
10. Disconnect the power supply to the console by pressing the **START** key **(IG) light off** and prepare to dismantle the internal pieces for more thorough cleaning.



AvvMIXGEL lav 80°

### Important notes:

- **Do not**, under any circumstances, use **Chlorine** or **Acids** of any type to disinfect the machine.
- Ask firms manufacturing washing products for food-manufacturing equipment to supply you with products as they are the best qualified people to advise you.
- Dry all the internal and external parts when the washing process is finished. No residue of any kind must remain.

## ⇒ Dismantling the pasteurizer stirrer (A) and lid (C)

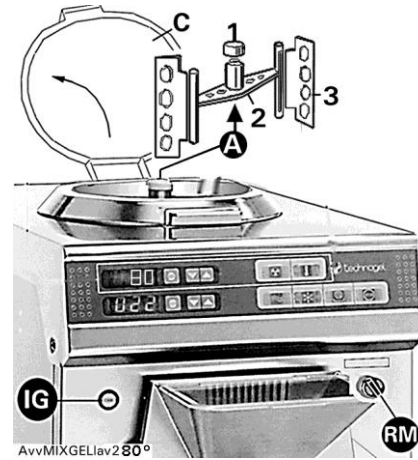
Extract the stirrer (A) from the pasteurizer by pulling it up from the bottom upwards.

The stirrer consists of four separate parts:

- protection cap (1)
- stirrer body (2)
- scraper blades (3)

Dismantle and clean using the device supplied with the machine. Re-assemble taking care to insert the scraper blades (3); they must oscillate in order to scrape thoroughly.

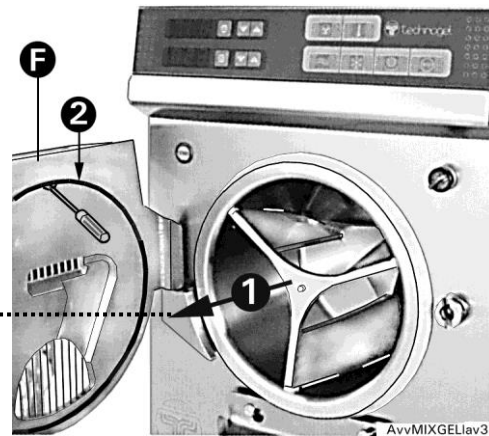
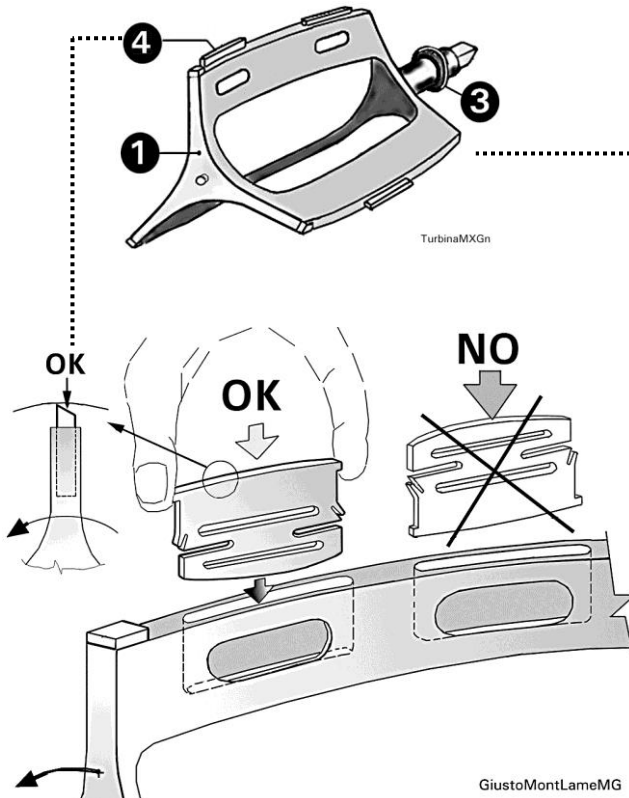
Dismantle lid (C) and wash separately with hot water and soap. **Do not use alcohol or solvents of any type whatsoever.**



## • Dismantling the batch freezer mixer turbine (1)

Open flange (F) turning the handle (MF) anticlockwise and pull it towards you.

Extract the mixer turbine (1), holding it by the spokes and pull it outwards.



Dismantle the scraper blades (4) and the stop device (3) and wash thoroughly in the sink.

After drying carefully, re-assemble the stop device V shaped seal (3) greasing it slightly with vaseline together with the scraper blades (4). Take care to assemble correctly as shown in the drawing.

Re-assemble the turbine (1) in the machine pushing it firmly to the bottom and fitting the triangular piece in its seat with the help of the turbine spokes.

Dismantle the internal washer (2) of flange (F); using a screwdriver, insert it in the seat in the flange and remove the washer. Wash it and re-assemble after greasing it slightly with vaseline.



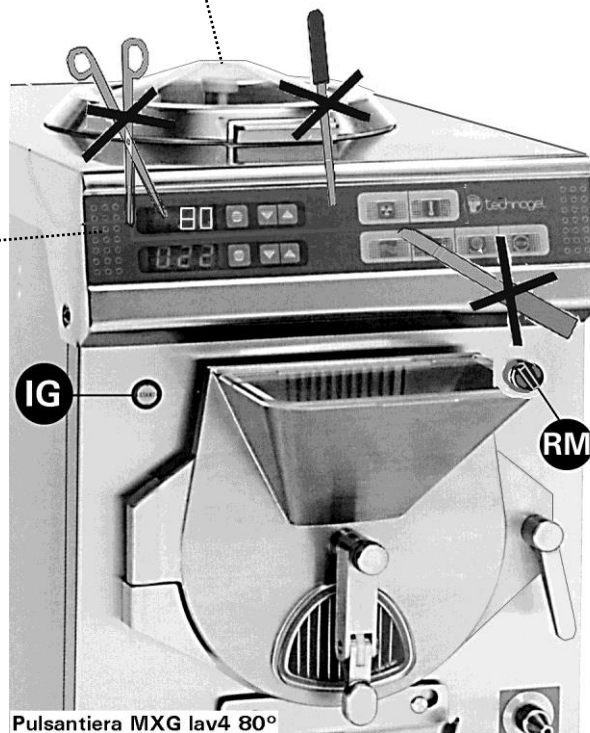
## Cleaning the lid and control console

- **Cleaning the transparent lid**

The lid of the pasteurization tank should be washed with hot or cold water together with liquid, not powder detergent. Kitchen detergent in powder form could scratch it.

When removing stubborn crusts, **do not use brushes or abrasive metal pads**. Soften the crusts by soaking with hot water and remove with a sponge or soft cloth.

**Under no circumstances should you use Alcohol, Acids or Solvents of any kind.**



- **Cleaning the control console**

The blue film on the console must be cleaned using a sponge soaked in hot or cold water and liquid detergent. An abrasive soap powder could ruin the film, scratching it and removing the colour.

**Never use acids or solvents of any kind whatsoever; they would damage the film.**

**Do not use metal or rigid plastic brushes or abrasive metal pads of the kind normally used in the kitchen.**

**In attempting to remove stubborn dirt, do not under any circumstances use blades or metal tools (knives – scissors – screw drivers – etc.) as these could cut the film.**

**Soak and soften with hot water and remove with a sponge or soft cloth.**



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# MAINTENANCE

# Maintenance: MIXGEL 30

## • For the operator

Each time the machine is washed, all accessible washers should be greased with vaseline to make assembly and operation easier.

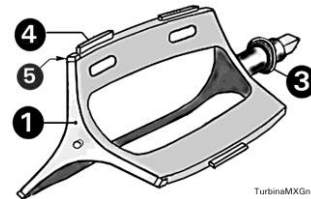
Carry out maintenance every week by extracting the drawer (P) located on the left hand side of the machine to make sure there are no leakages from the turbine washer. If the drawer (P) is full of ice-cream, replace the turbine washer (3). For information on this please see below.



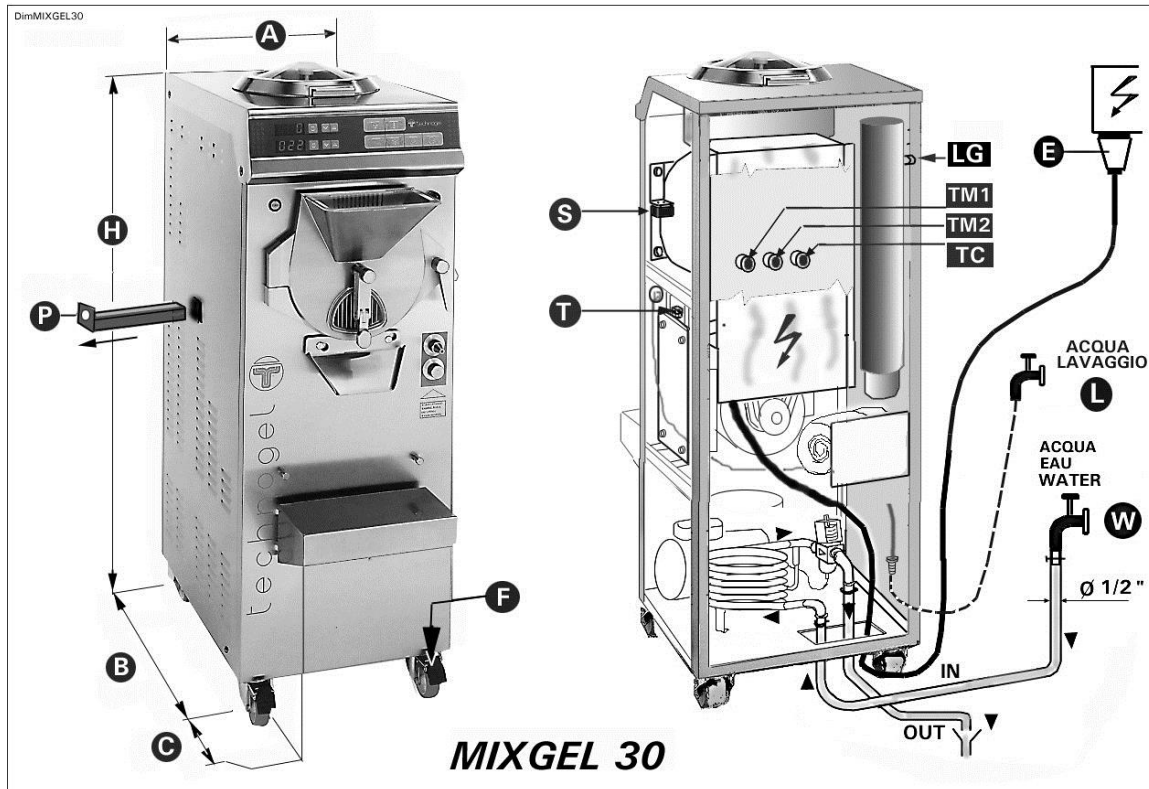
Periodically check the wear and tear on the scraper blades (4), see below, and when necessary replace them.

At the start of each new season, if necessary, replace all the washers. See below for the Order Code.

Pos.	N° pcs Per turbina	Name of Component	Order Code
3	1	MIXGEL 30 turbine washer	GU-3903.0
4	3	Scraper blade*	ME-11171.0
5	3	Turbine centre block*	ME-11172.0
-	-	MIXGEL 30 washer kit	.....



\* When the scraper blades are replaced, the turbine centre blocks must also be replaced.



**MIXGEL 30**

## • For the Authorized Technician

After the first month's operation, check the tension on the turbine stirrer motor belts. To increase tension, adjust screw (T) as shown in the figure.

At the end of each season or at the start of the new one, carry out the following checks:

- check the refrigeration system is operating efficiently: quantity of refrigerating gas and cleaning of the Condenser
- check the level of heating Glycol from (LG).
- check the state of wear and tear on the transmission belts and replace if necessary





# Maintenance: MIXGEL 50

## • For the operator

Each time the machine is washed, all accessible washers should be greased with vaseline to make assembly and operation easier.

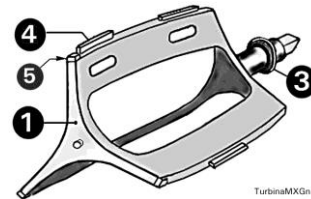
Carry out maintenance every week by extracting the drawer (P) located on the left hand side of the machine to make sure there are no leakages from the turbine washer. If the drawer (P) is full of ice-cream, replace the turbine washer (3). For information on this please see below.



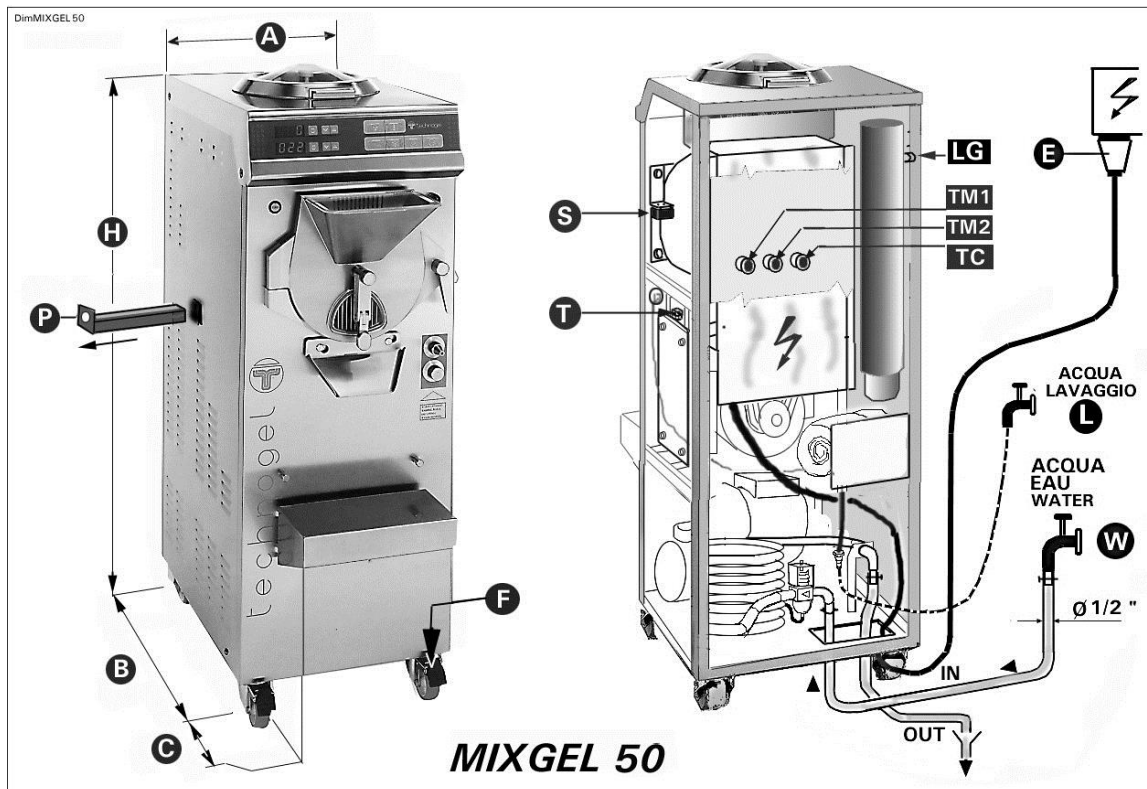
Periodically check the wear and tear on the scraper blades (4), see below, and when necessary replace them.

At the start of each new season, if necessary, replace all the washers. See below for the Order Code.

Pos.	N° psc Per turbine	Name of Component	Order Code
3	1	MIXGEL 50 turbine washer	GU-3905.0
4	3	Scraper blade*	ME-11171.0
5	3	Turbine centre block*	ME-11172.0
-	-	MIXGEL 50 washer kit	.....



\* When the scraper blades are replaced, the turbine centre blocks must also be replaced.



## • For the Authorized Technician

After the first month's operation, check the tension on the turbine stirrer motor belts. To increase tension, adjust screw (T) as shown in the figure.

At the end of each season or at the start of the new one, carry out the following checks:

- check the refrigeration system is operating efficiently: quantity of refrigerating gas and cleaning of the Condenser
- check the level of heating Glycol from (LG).
- check the state of wear and tear on the transmission belts and replace if necessary



## Noise level

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The noise level when the machine is in operation is less than 70 dB (A) at a distance of 1 metre from the machine.

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## ⇒ ECOLOGY WARNING

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"This machine contains substances that could damage the ozone layer; when it has outlived its useful life, it must be handed over to the appropriate refuse disposal centres Please ask the local authorities in your town or city for information regarding this specialized refuse collection service."

## ⇒ Caution: risk of machine damage

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If, during the winter, the facility is not used, make sure that the room where the machines are stored is kept at a temperature above 0° C.

As this machine is water-cooled, the refrigerating unit could be damaged if ice forms and repairs would be extremely costly.

To drain the water in the condensation plant, call the **AUTHORIZED TECHNICAL SERVICE**.

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# TROUBLE-SHOOTING

## **WARNING:**

*The operator must only carry out work on the machine where the symbol indicates that no danger is involved.*





*In all other cases, work must be carried out exclusively by a qualified Authorized Technician.*

## Possible problems with causes and remedial action







The operator may only carry out work on the machine without any risk of danger when the symbol below indicates this.




In all other cases, work must be carried out **exclusively** by an **Authorized Technician**.

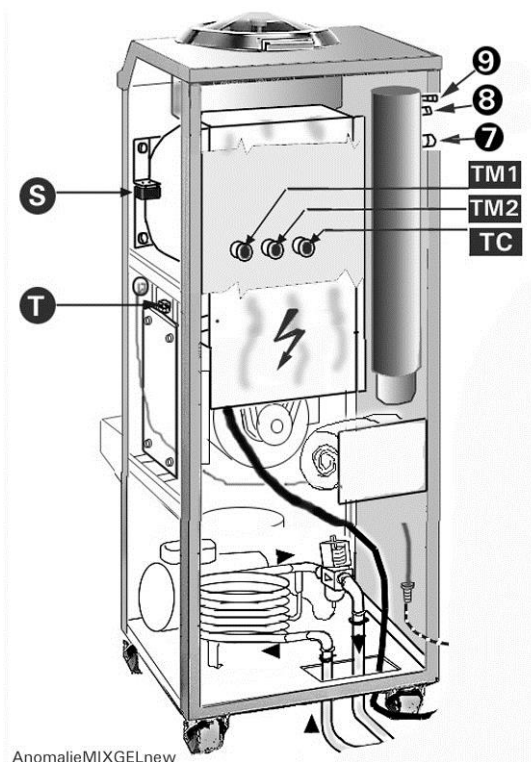
### ➤ PROBLEMS REGARDING HEATING (*pasteurization*)

PROBLEM	CAUSE	REMEDY	
Heating time is too long.	<i>Glycol heat regulator is out of kilter or broken.</i>	Check setting of glycol heat regulator	
Heating does not operate.	<i>Glycol pump is stopped. Heating element burnt out.</i>	Check glycol pump. Check heating element.	
The boiler stirrer does not work.	<i>Stirrer motor blocked. Slittamento cinghia trasmissione.</i>	Check operation of the motor or whether there is a mechanical blockage of the stirrer shaft. Check belt tension.	
Leakage of mix from the boiler to the freezer	<i>Damage or wear and tear of faucet washer</i>	Check and replace if necessary	
Incorrect pasteurization temperature.	<i>Heat regulator probe is broken</i>	Check and if necessary replace	

### ⇒ PROBLEMS REGARDING COOLING (*freezing*)


The refrigerator compressor either stops or only works intermittently.	<i>There is no cooling water or not enough Water and so the high pressure-switch keeps coming into action.</i>	Check that the water is reaching the machine in the right quantity and at the right pressure (see consumption data on page 11).	
The compressor stops and will not start again.	<i>The heat protection device on the motor has been activated</i>	Reset using the reset button <b>TC</b> (press the button at the back of the machine).	
The compressor will not start even though there is no shortage of cooling water.	<i>The high pressure switch could be broken.</i>	Check and replace if necessary.	
The warning signal indicating "ice-cream ready" sounds constantly right from the start.	<i>The setting on the amperometric switchboard is too low. Amperometric switchboard is damaged.</i>	Increase the value stored in the switchboard memory (see page 19). Call the Technician to replace it.	
Freezing time is too long.	<i>Not enough cooling gas in the refrigeration system</i>	Check and if necessary repair (find leakage). See the serial plate for the type and quantity of gas required.	
The stirrer motor stops during ejection of ice-cream.	<i>Texture of ice-cream too thick so the motor protection device comes into operation</i>	Reset using the reset button on the back of the machine. Decrease the value on the amperometric switchboard since it is too high. (see page 19)	
Cooling time is too long.	<i>Scraper blades are worn and so there is a crust of ice-cream which restricts heat exchange.</i>	Replace all the scraper blades and turbine centre blocks (if these are not replaced, the new scraper blades will be subjected to excessive wear and tear over a short period of time).	

PROBLEM	CAUSE	REMEDY	
The stirrer motor stops during the freezing process.	<i>Excessively thick texture of the ice-cream has caused the motor protection device to activate.</i>	Reset using the reset buttons on the back of the machine ( pos. <b>TM1</b> ).	
The turbine stops during the freezing process though the motor rotates.	<i>The belts transmitting movement to the turbine have slackened.</i>	Tighten the belts using screw pos. <b>I</b> . Replace the belts if worn (if replacement is required, all the belts must be replaced, not just one).	
During operation of the machine, it stops and the control panel turns off too.	<i>The flange safety switch has broken.</i>	Replace switch pos. <b>S</b> . <b>CAUTION:</b> If the switch is not replaced the machine has not protection device against accidental opening of the flange.	



AnomalieMIXGELnew

➤ **CHECKING THE HEATING FLUID (GLYCOL)**

<p>Check the level of the glycol from peep-hole <b>7</b>; the inspection hole must be full and green in colour. If it is white, this means there is not enough glycol.</p> <p>Control has to be made with cool glycol.</p>	<p><i>If there is insufficient glycol there must be a leakage in the system.</i></p>	<p>Check and find the leak.</p> <p>Pour in glycol through inlet <b>8</b></p> <p>The glycol poured in must be diluted by 50%: i.e.</p> <ul style="list-style-type: none"> <li>- 50% water</li> <li>- 50% pure glycol</li> </ul> <p>If too much glycol is added, when the machine is in operation it will leak from the safety valve <b>9</b>.</p>	
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# TECHNICAL CHARACTERISTICS WITH DIAGRAMS

***Section reserved for Authorized Service Technician***

**Technical features:****MIXGEL 30**

Electric refrigerator	Semi-airtight HP 2 (1.5 kW)
Refrigerating gas	404A Freon (quantity 1,2 kg.)
Agitator motor	750/1500 rev/min 1.3/2.6 kW
Servomotore rubinetto pastorizzatore	2,5 VA
Pasteuriser resistance	1 from 4 kW.
Glycol blow-by pump	0.33 kW. monophase
Glycol (diluted with 50% water)	litres
Condensation	water (min. pressure 1,5 Bar)

Motor protector calibration		200 V. 50/60HZ	220 V. 50HZ	220 V. 60HZ	400 V. 50HZ	380 V. 60HZ
Refrigerating compressor	A.	10	9.5	9,5	5.5	
Agitator motor:						
-slow speed	A.	8,5	8	8	5,5	
-high speed	A.	12	13	13	9	

Electric system fuses	200 V. & 220 V.	380 V. & 415 V.
Protezione servomotore rub. Past.	n° 1 d. 5 x 20 2A. GL type	n° 1 d. 5 x 20 2A. GL type
Glycol pump & agitator motor protection	N° 1d. 5x20 6.3A. delayed type	N° 1d. 5x20 6.3A retarded type
Compressor resistance protection	N° 1 5x20 0.5A rapid type	N° 1 5x20 0.5A rapid type
F2 primary transformer	N° 2d.5x20 2A rapid type	N° 2d.5x20 2A rapid type
F3 secondary transformer	N° 2d. 5x20 6.3 delayed type	N° 2d. 5x20 6.3 retarded type
Line protection	N° 3d.10x3825A AM type	N° 3d.10x3820A AM type

High pressure switch and stationary calibration	Operating pressure values (+ /- 0.5 Bar)
Disconnecting pressure	20.7 Bar = 300 Psi
Connecting pressure	13.-8 Bar = 200 Psi
Differential	6.9 bar = 100 Psi

Glycol current meter calibration	100° C = 212° F
Thermostat calibration for glycol safety	105° C = 221° F

Safety valve	Operating pressure values = 28 Bar
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**REFRIGERATING SYSTEM WORKING TEMPERATURES AND PRESSURES**

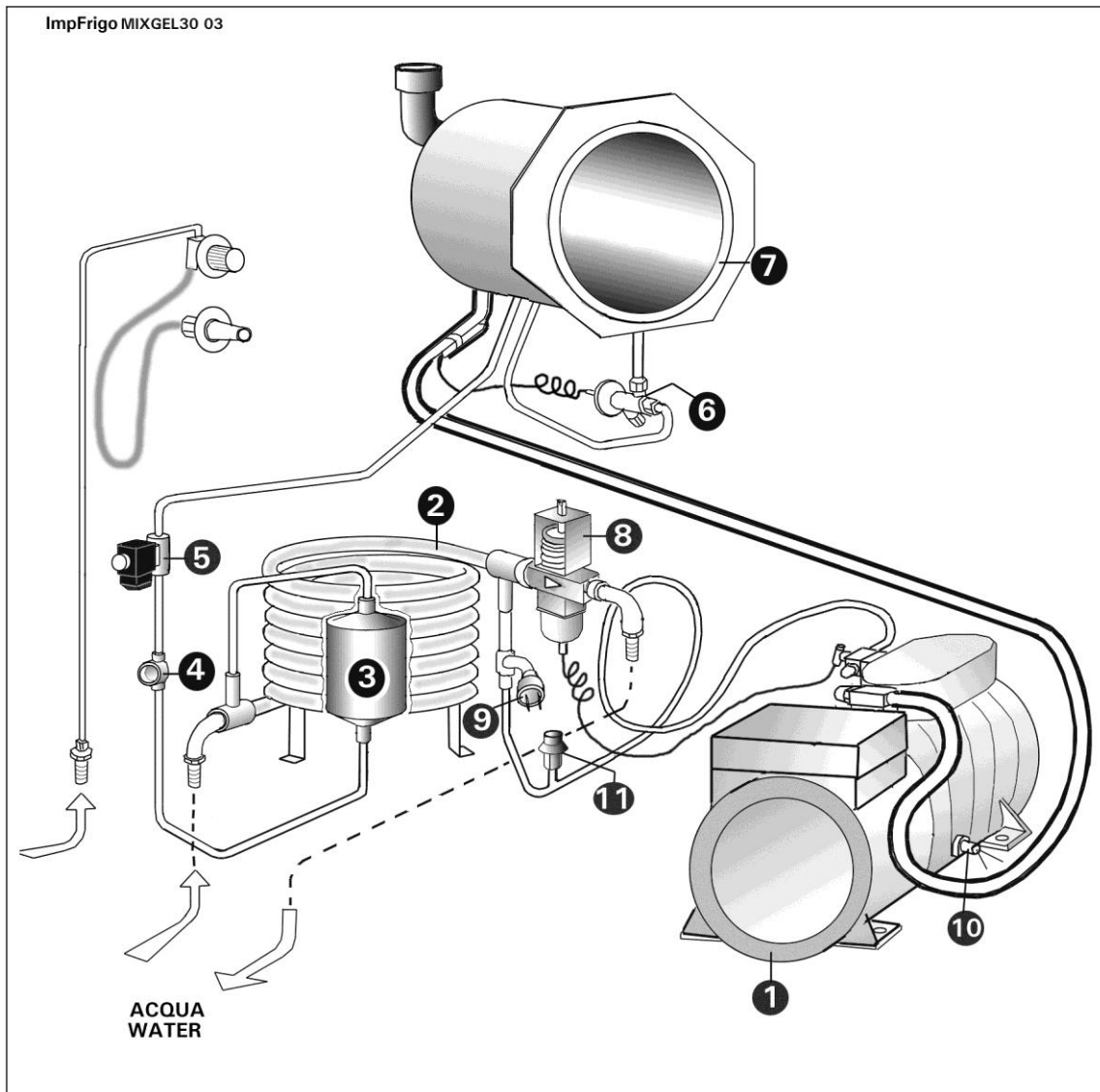
Condensation (high pressure)	Start-up (Hot mixture + 85°)	Start-up (cold mixture + 4°)	Work end (ice cream ready)
+ 35° C = 15.5 Bar 95° F = 225 Psi	-14° C = 2,8 Bar 7° F = 40 Psi	-20° C = 2 Bar -4° F = 30 Psi	-33° C = 0.8 Bar -27.4° F = 12 Psi

The machine is supplied with the above values and calibrations performed in the factory.

**TECHNOGEL spa WILL NOT BE HELD LIABLE FOR DAMAGE TO OBJECTS AND PERSONS CAUSED BY ALTERING THE PRE-ESTABLISHED VALUES OR BY USING FUSES WITH THE WRONG FEATURES OR OF THE WRONG SIZE**



# MIXGEL 30 water cooling refrigerant plant unit



Pos.	Name	Code
1	Refrigerator compressor: - V.220-240/380-415      50 HZ. - V.220/380                      60 HZ. - V.200                              50/60 HZ	CP-6576.6/20 MC-0108/6 MC-0108/2B
2	Condenser type: concentric tubes	CD-8398.6/20
3	Gas filter	CD-5623.6
4	Gas pilot light	M2-0049
5	Solenoid valve without coil - V.24/50-60 HZ electric coil only	VV-5614.6 VV-5616.6
6	Thermostatic expansion valve	VT-15424.4
7	Freezer tube complete	PMT-18078.3/20
8	Water pressure switch valve	VT-17910.6
9	Fixed calibration pressure switch	TR-15654.6
10	Electrical resistance sump compressor	ME1-0131
11	Safety valve	

NB: When ordering spare parts for the refrigeration plant, as well as the code number always quote the machine type - registration number - voltage and Hertz.

**Technical features:****MIXGEL 50**

Electric refrigerator	Semi-airtight HP 3 (2,2 kW)
Refrigerating gas	404A Freon (quantity 1,2 kg.)
Agitator motor	750/1500 rev/min 2,6/4,8 kW
Servomotore rubinetto pastorizzatore	2,5 VA
Pasteuriser resistance	1 from 4 kW.
Glycol blow-by pump	0.33 kW. monophase
Glycol (diluted with 50% water)	litres
Condensation	water (min. pressure 1,5 Bar)

Motor protector calibration		200 V. 50/60HZ	220 V. 50HZ	220 V. 60HZ	400 V. 50HZ	380 V. 60HZ
Refrigerating compressor	A.		13	13	7.5	
Agitator motor:						
-slow speed	A.		11	11	9	
-high speed	A.		19	19	13,5	

Electric system fuses	200 V. & 220 V.	380 V. & 415 V.
Protezione servomotore rub. Past.	n° 1 d. 5 x 20 2A. GL type	n° 1 d. 5 x 20 2A. GL type
Glycol pump & agitator motor protection	N° 1d. 5x20 6.3A. delayed type	N° 1d. 5x20 6.3A retarded type
Compressor resistance protection	N° 1 5x20 0.5A rapid type	N° 1 5x20 0.5A rapid type
F2 primary transformer	N° 2d.5x20 2A rapid type	N° 2d.5x20 2A rapid type
F3 secondary transformer	N° 2d. 5x20 6.3 delayed type	N° 2d. 5x20 6.3 retarded type
Line protection	N° 3d.10x38 32A AM type	N° 3d.10x38 25A AM type

High pressure switch and stationary calibration	Operating pressure values (+ /- 0.5 Bar)
Disconnecting pressure	20.7 Bar = 300 Psi
Connecting pressure	13.-8 Bar = 200 Psi
Differential	6.9 bar = 100 Psi

Glycol current meter calibration	100° C = 212° F
Thermostat calibration for glycol safety	105° C = 221° F

Safety valve	Operating pressure values = 28 Bar
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**REFRIGERATING SYSTEM WORKING TEMPERATURES AND PRESSURES**

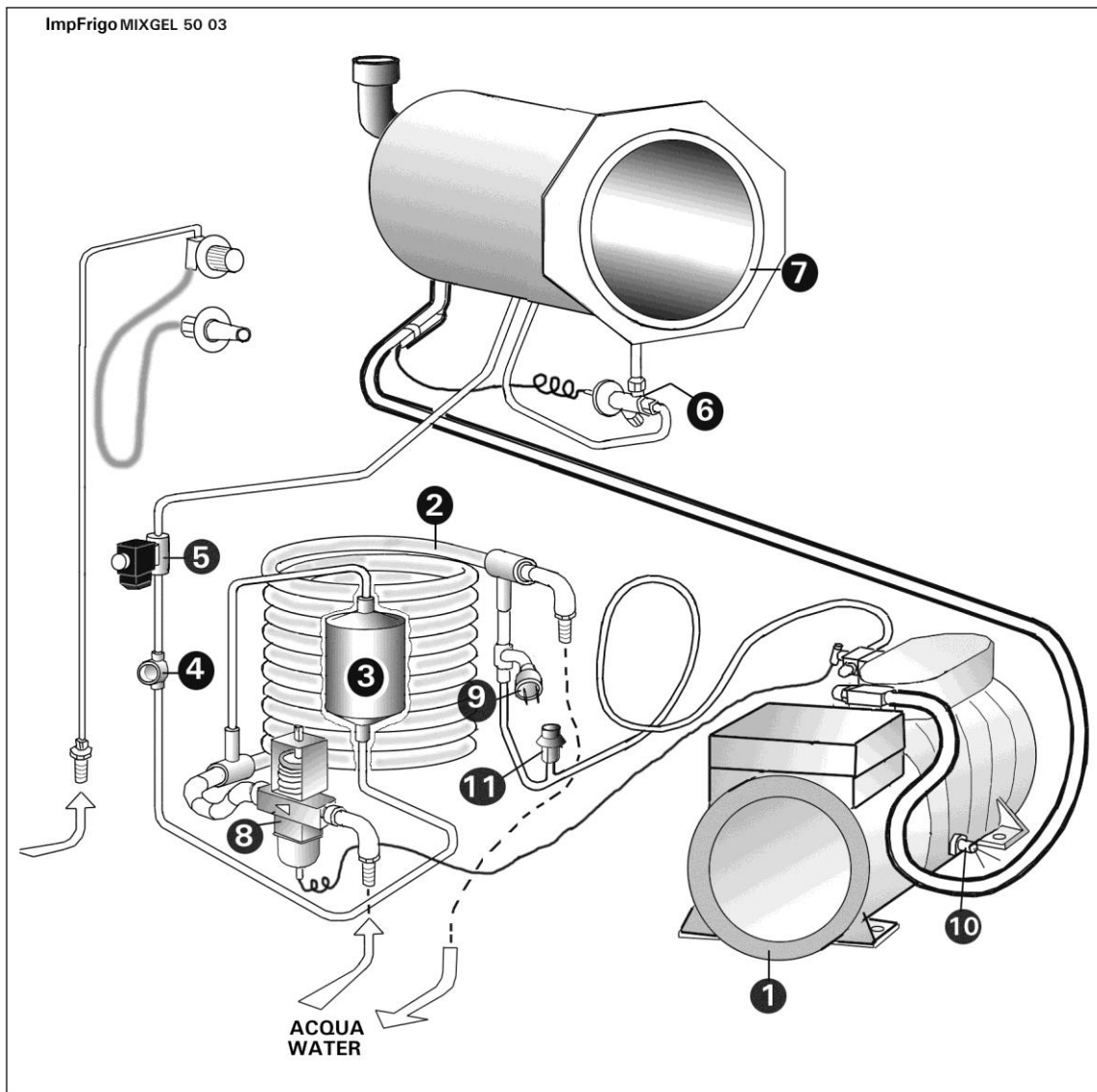
Condensation (high pressure)	Start-up (Hot mixture + 85°)	Start-up (cold mixture + 4°)	Work end (ice cream ready)
+ 35° C = 15.5 Bar 95° F = 225 Psi	-14° C = 2,8 Bar 7° F = 40 Psi	-20° C = 2 Bar -4° F = 30 Psi	-33° C = 0.8 Bar -27.4° F = 12 Psi

The machine is supplied with the above values and calibrations performed in the factory.

**TECHNOGEL spa WILL NOT BE HELD LIABLE FOR DAMAGE TO OBJECTS AND PERSONS CAUSED BY ALTERING THE PRE-ESTABLISHED VALUES OR BY USING FUSES WITH THE WRONG FEATURES OR OF THE WRONG SIZE**



# MIXGEL 50 water cooling refrigerant plant unit



Pos.	Name	Code
1	Refrigerator compressor: - V.220-240/380-415      50 HZ. - V.220/380                      60 HZ. - V.200                              50/60 HZ	CP-15750.6 CP-16872.6 ME1-0125/2B
2	Condenser type: concentric tubes	CD-11126.6
3	Gas filter	CD-5623.6
4	Gas pilot light	M2-0049
5	Solenoid valve without coil - V.24/50-60 HZ electric coil only	VV-5614.6 VV-5616.6
6	Thermostatic expansion valve	VT-15420.4
7	Freezer tube complete	PMT-18078.3/20
8	Water pressure switch valve	MC-0039
9	Fixed calibration pressure switch	TR-6251.6
10	Electrical resistance sump compressor	ME1-0131
11	Safety valve	

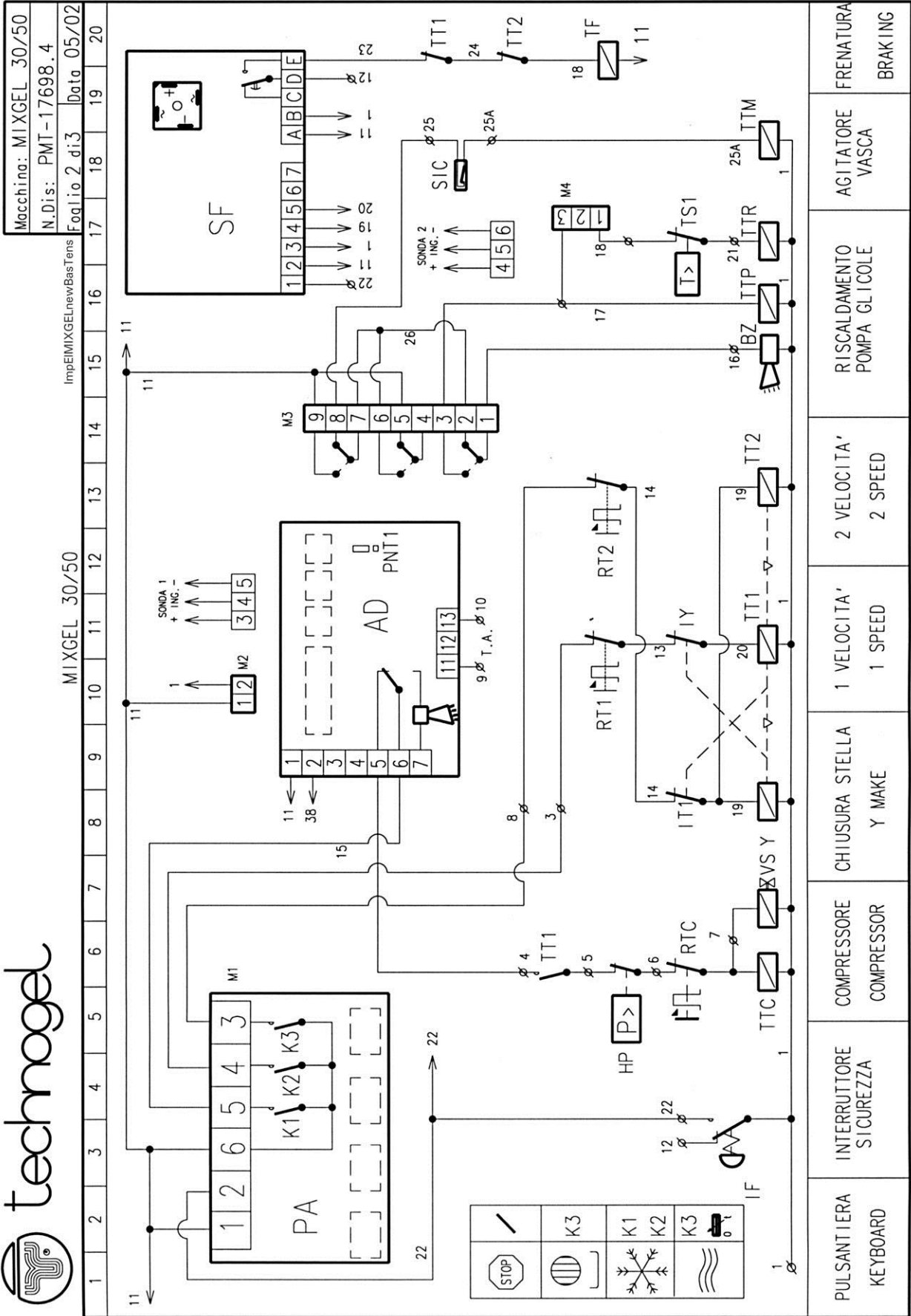
NB: When ordering spare parts for the refrigeration plant, as well as the code number always quote the **machine type - registration number - voltage and Hertz.**



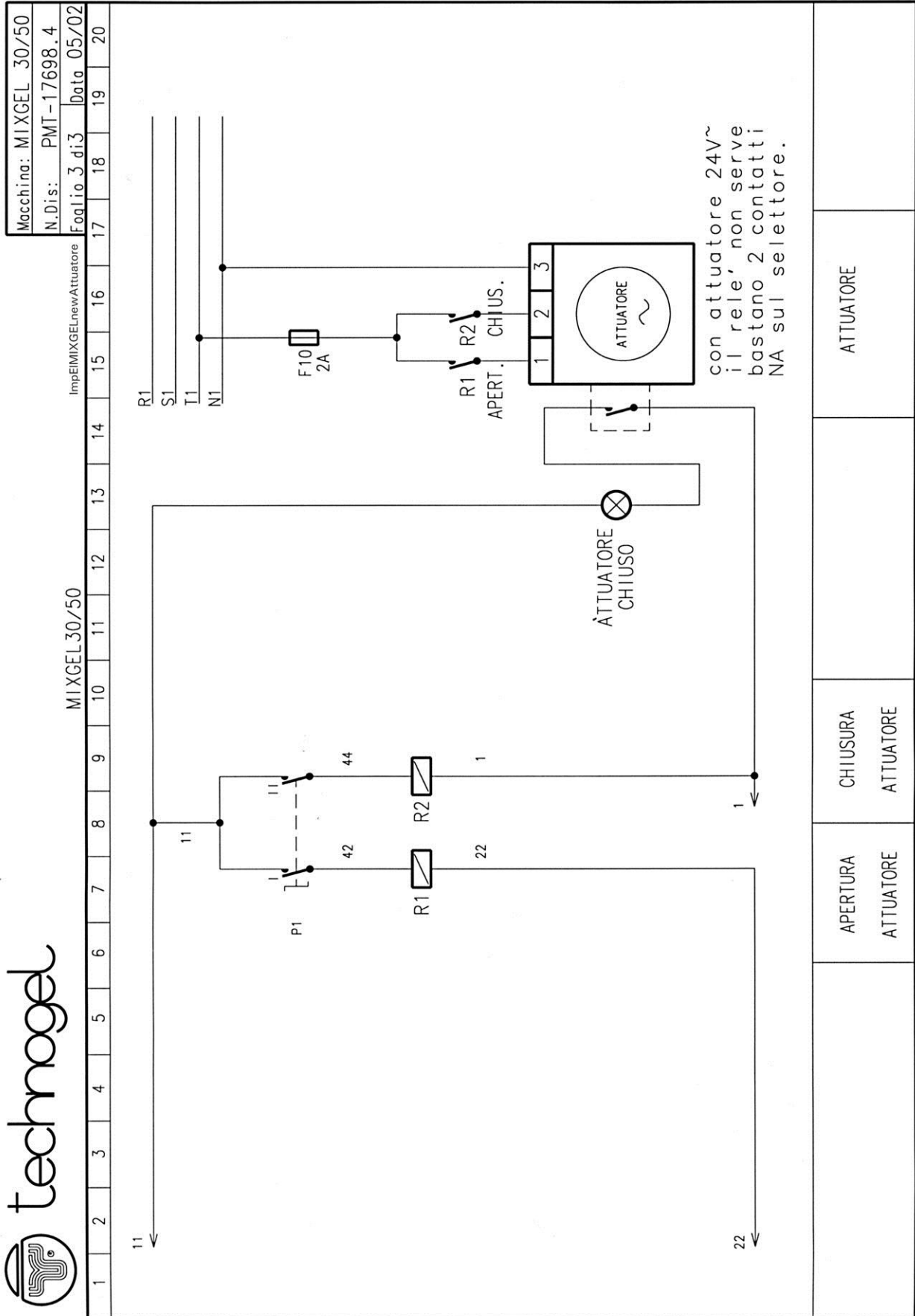
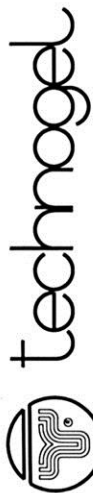
# Electric System

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# Electric system: low tension



# Electric system: Activator



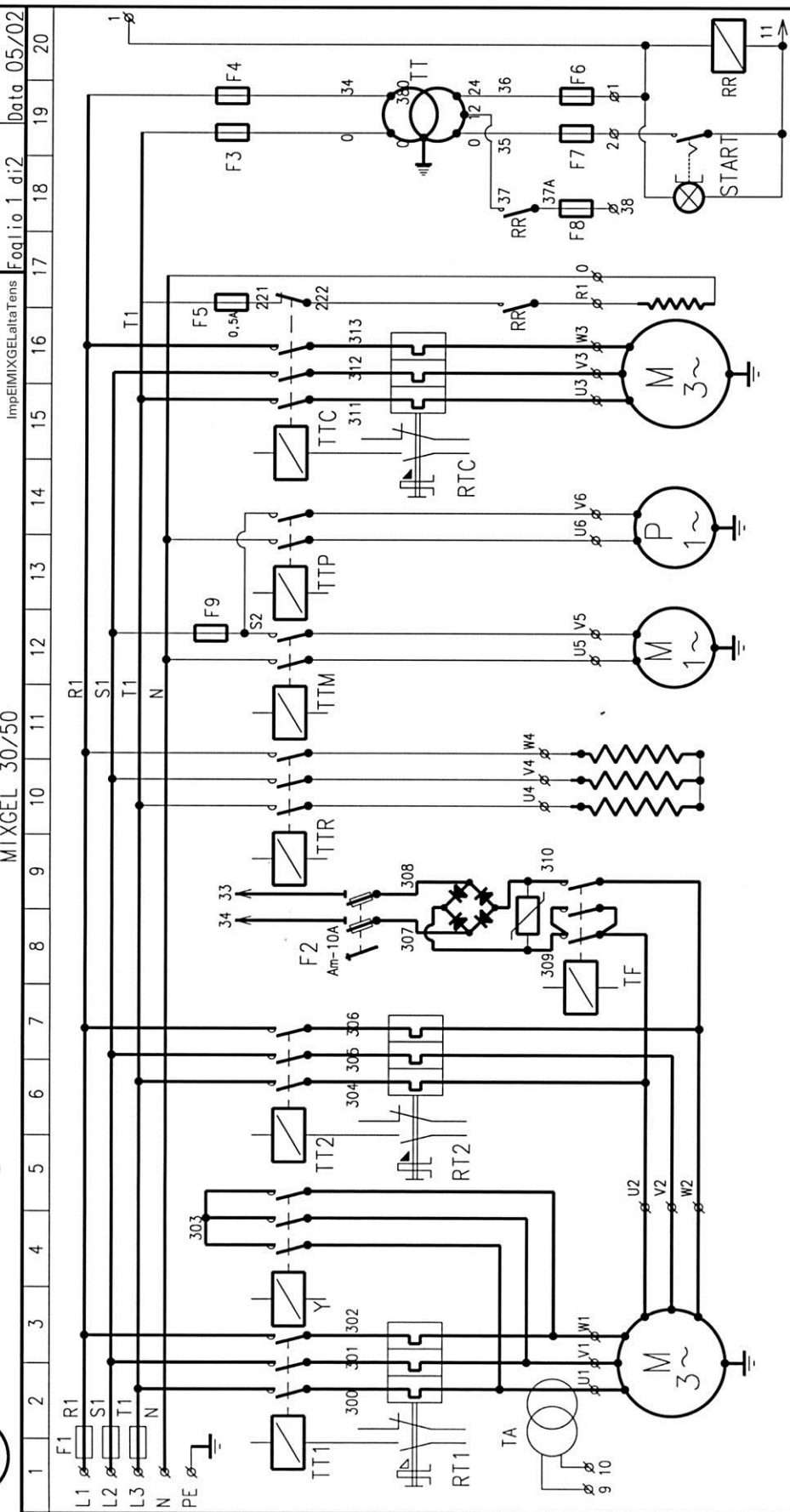


# Electric system: high tension



Macchina: MIXGEL 30/50  
 N.Dis: PMT-17698.4  
 Foglio 1 di 2 Data 05/02

MIXGEL 30/50



MOTORE 1° VELOCITA' 1 SPEED	CHIUSURA STELLA Y MAKE	2 VELOCITA' 2 SPEED	FRENATURA BRAKING	RISCALD. HEATING	AGITATORE PASTOR. AGITATOR.	POMPA GLICOLE GLYCOL P.	COMPRESSORE COMPRESSOR	TRASFORMATORE TRANSFORMER
M.GEL 30 KW 1.32		KW 2.6		KW 4	KW 0,11	KW 0,33	KW 1.5	KW 0.1
M.GEL 50 KW 2.1		KW 3.7		KW 4	KW 0,11	KW 0,33	KW 2.2	KW 0.1

# SPARE PARTS

The next few pages describe the various units comprising the machine.

When ordering **spare parts**, please quote the following:

- **Type of machine**
- **Serial number of the machine** (see page 6)
- **Voltage of the machine** (for electrical spare parts)
- **Code number of the piece indicated, or the number corresponding to the piece required with the page number of the manual where the piece is shown.**

### Forward the request to the Authorized retailer

Authorized retailer

Factory:

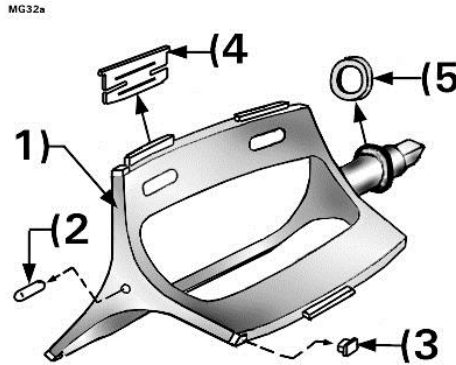
 <b>technogel</b> spa	MACCHINE E IMPIANTI PER GELATO
	ICE CREAM EQUIPMENTS AND MACHINES
Sede (factory): Via Boschetti, 51 - 24050 Grassobbio (BG) <b>ITALY</b> Tel.: + + 39 035 4522062 Fax: + + 39 035 4522682	Website: <a href="http://www.technogel.com">www.technogel.com</a> E-mail: <a href="mailto:info@technogel.com">info@technogel.com</a>

**TECHNOGEL SHALL NOT BE HELD RESPONSIBLE FOR ANY DAMAGE OR FAULTS IN OPERATION ARISING FROM THE USE OF NON-ORIGINAL SPARE PARTS, i.e. PARTS NOT APPROVED FOR ASSEMBLY ON MACHINERY MANUFACTURED BY THE COMPANY.**



⇒ Turbine group:

MIXGEL 30



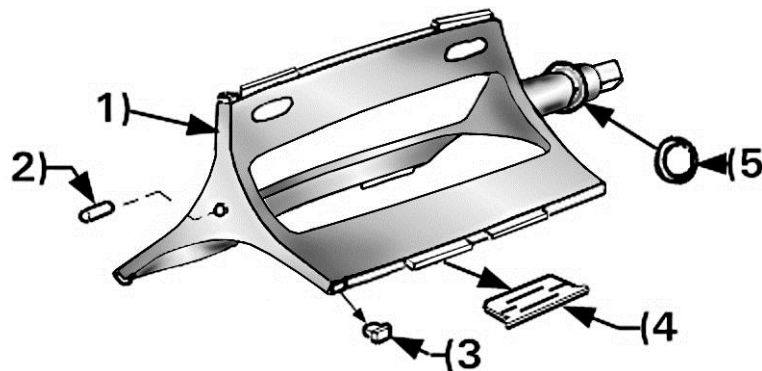
Pos. N°	N° pieces	Part name	Code
1	1	Turbine complete with all particulars	ME-11185.4/10
1	1	Turbine casing (without particulars)	ME-11175.2
2	1	Ratchet	ME-3912.0/10
3	3	Turbine centring sliding block	ME-11172.0
4	3	Scraper blades	ME-11171.0
5	1	Turbine sealing gasket	GU-3903.0

\* When scraper blades (4) are replaced, the turbine centering blocks (3) must also be replaced.

⇒ Turbine group:

MIXGEL 50

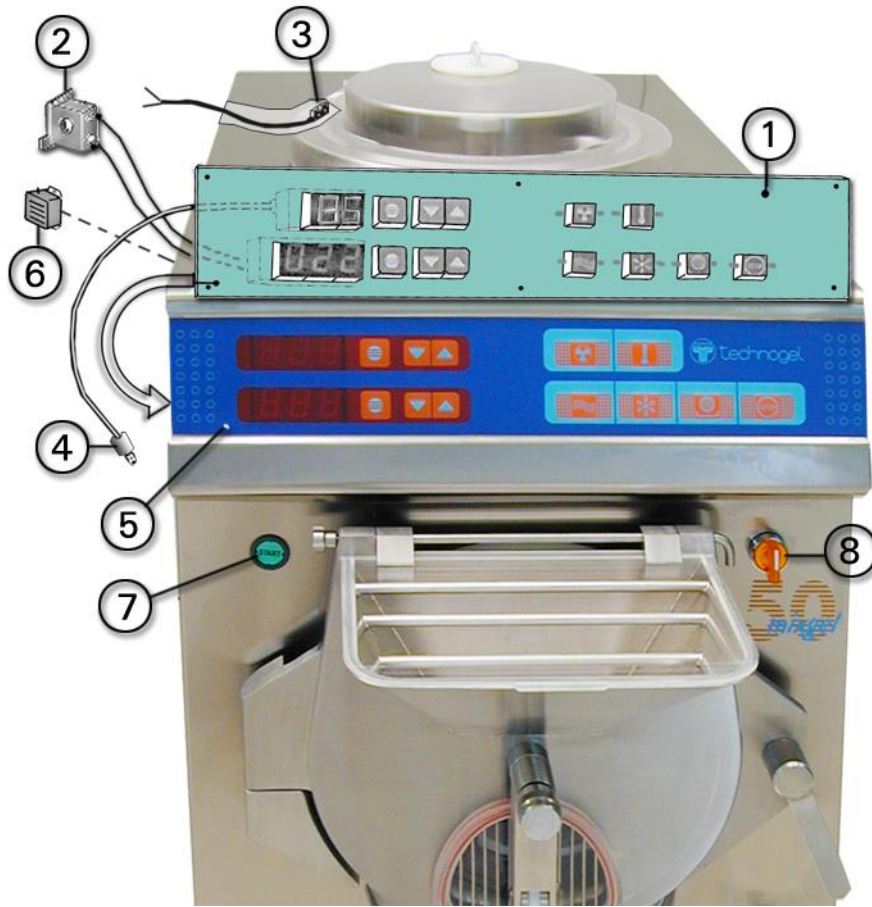
MG32b



Pos. N°	N° pieces	Part name	Part number
1	1	Turbine complete with all particulars	ME-11181.4/10
1	1	Turbine casing (without particulars)	ME-11179.2
2	1	Ratchet	ME-3912.0/10
3	3	Turbine centring sliding block	ME-11172.0
4	6	Scraper blades	ME-11171.0
5	1	Turbine sealing gasket	GU-3905.0

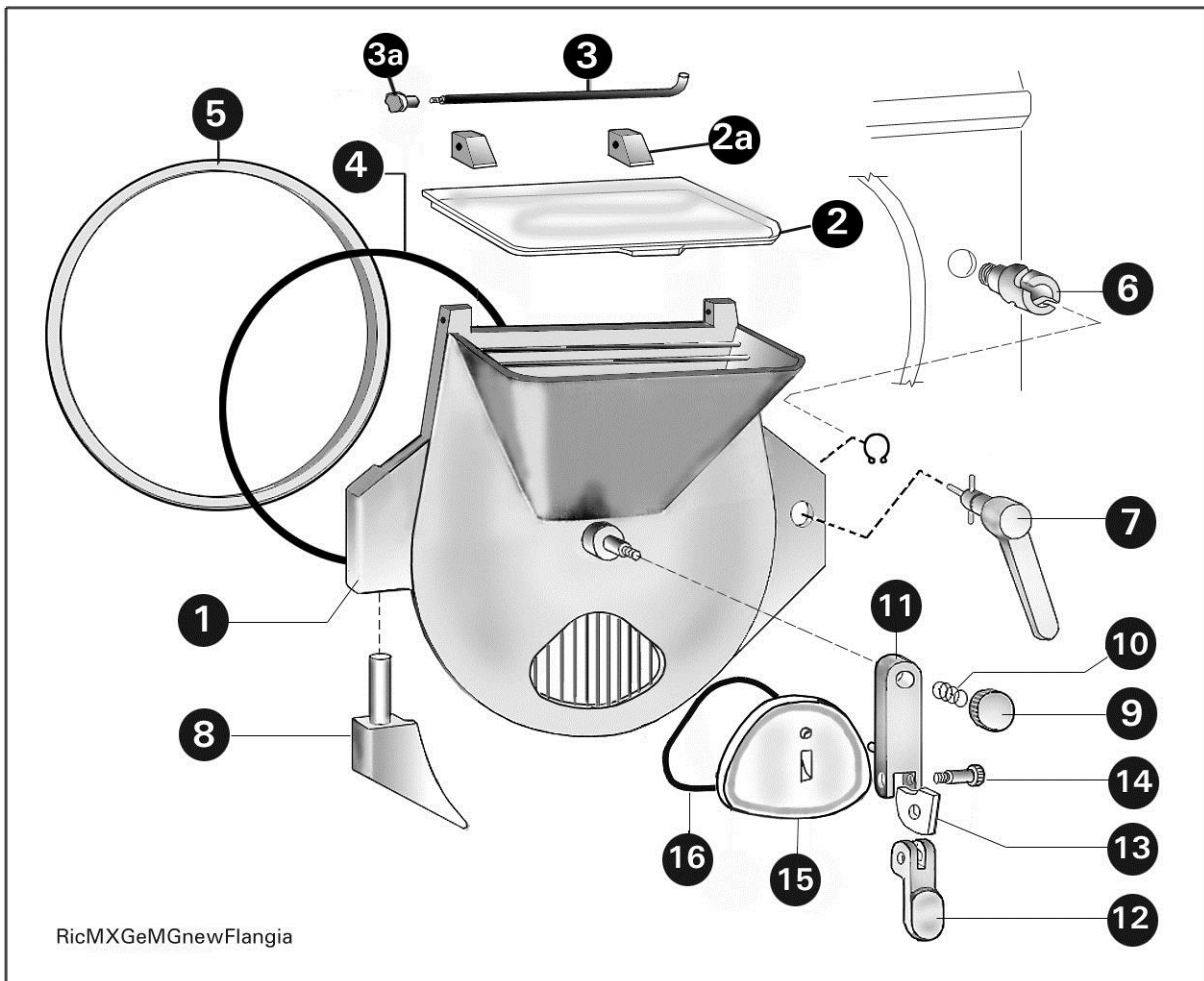
\* When scraper blades (4) are replaced, the turbine centering blocks (3) must also be replaced.

## Console group



N°	Name of component	Code MIXGEL 30	Code MIXGEL 50
1	Complete electronic card vers. 220V/60HZ ETL	CC-23102.4	CC-23108.4
	Complete electronic card vers. 200V/50-60HZ	CC-23104.4	CC-23110.4
	Complete electronic card vers. 380V/60HZ	CC-23105.4	CC-23111.4
	Complete electronic card vers. 400V/60HZ	CC-23106.4	CC-23112.4
	Complete electronic card vers. 480V/60HZ	CC-23107.4	CC-23113.4
2	Trasformatore TA	ME-0015	ME-0015
2	TA transformer	CC-18908.6	CC-18908.6
3	Sensor magnetic stem E510 UL	CC-21140.6/10	CC-21140.6/10
4	Mix temperature electronic probe	MXT-5997.3/31	MXT-5997.3/31
5	Self-adhesive keyboard film	PMT-22545.6	PMT-22545.6
6	Warning signal "beep beep" for mixer ready	ME-0140	ME-0140
7	START switch	CC-5719.6	CC-5719.6
	LED for switch	CC-16651.6	CC-16651.6
8	Mixer faucet control switch:		
	Head electrical worker	CC-15462.6	CC-15462.6
	Body lamp	CC-15466.6	CC-15466.6
	Contact NO	CC-15470.6	CC-15470.6
	Contact NC	CC-15471.6	CC-15471.6

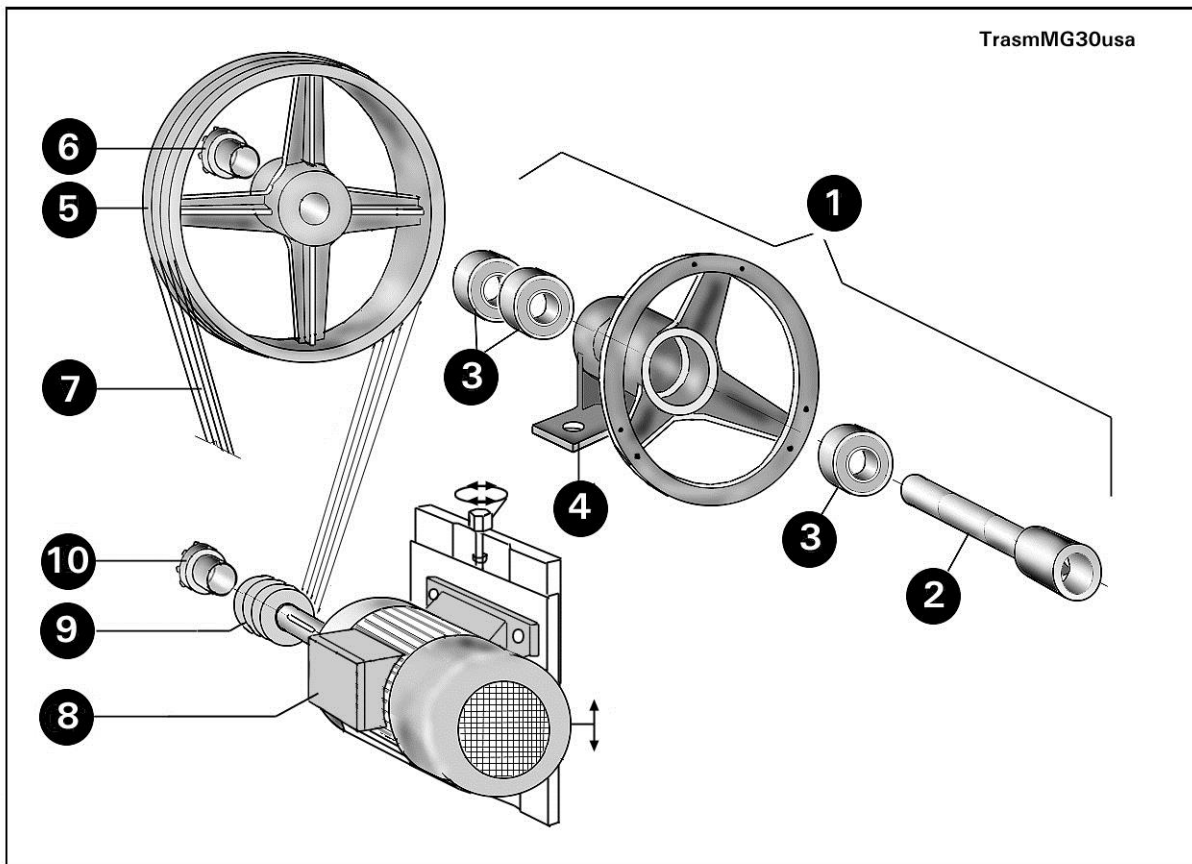
## - "Flange" unit



Pos.	Name	Code
1	Flange body	ME-18486.3/20
2	Feedbox cover	ME-18490.0/10
2a	Cerniera coperchio tramoggia	ME-18490.2/20
3	Perno cerniera	ME-18491.0
3a	Volantino	ME-18493.0
4	Red flange gasket	ME-0036
5	Grey freezer gasket	GU-4309.0/20
6	Flange block bush	ME-15972.0/10
7	Flange door handle	ME-15970.2
8	Flange	ME-4397.3/10
9	Flange hinge	ME-8966.0/01
10	Lever knob	MS-0347.6
11	Lever Complete	ME-8968.3/02
12	Lever Mob.	ME-8965.0
13	Cam block cap	ME-8970.0/10
14	Leve Perno	ME-8964.0/01
15	Ice-cream seal cap	ME-18488.0/10
16	Cap seal gasket	GU-18746.6

NB: The parts quoted and depicted above are identical for **MIXGEL 30 – MIXGEL 50**

## ⇒ Turbine draft support unit



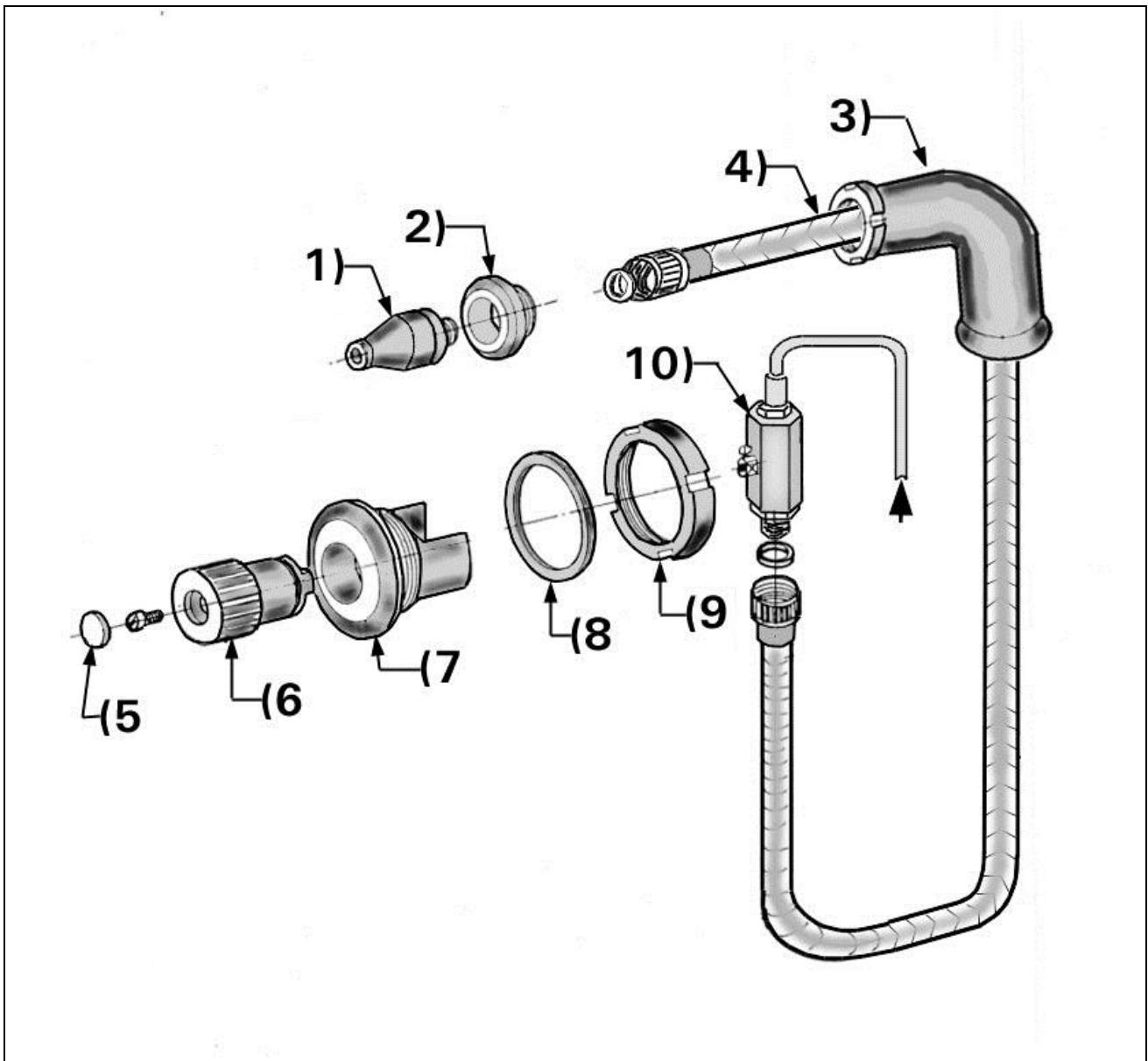
N° Pos.	N° Pez.	Name	MIXGEL 30 Code	MIXGEL 50 Code
1	1	Complete support	ME-0237.4	ME-7137.4
2	1	Shaft support	ME-4361.2	ME1-4440.2
3	3	Bearing support	CS-6610.6	CS-6610.6
4	1	Aluminium body support	ME-4379.0	ME-4379.0
5	1	Pulley support	M2-4888.0	M2-4888.0
6	1	Pulley wedge	PU-6599.6	PU-6599.6
7	*	Transmission belt	FR3-0131 * n° 3 belts A59	FR3-0131 * n° 3 belts A59
8	1	Turbine motor	V400-50HZ V220 50HZ V220 60HZ V380/60HZ V200/50-60HZ MO-0014/2 MO-0014 MO-0014/6 MO-0014/2B	MO-7925.6/2** MO-7925.6 MO-7925.6/6
9	1	Pulley motor	PU-11173.0	PU-11174.0
10	1	Pulley wedge	PU-6601.6	-----

### ATTENTION:

\* If a belt needs to be replaced, all belts must be changed. There must never be a single belt replacement

\*\* For the **MIXGEL 50** machine, the motor is supplied complete with pulley (**PU-11174.0**).

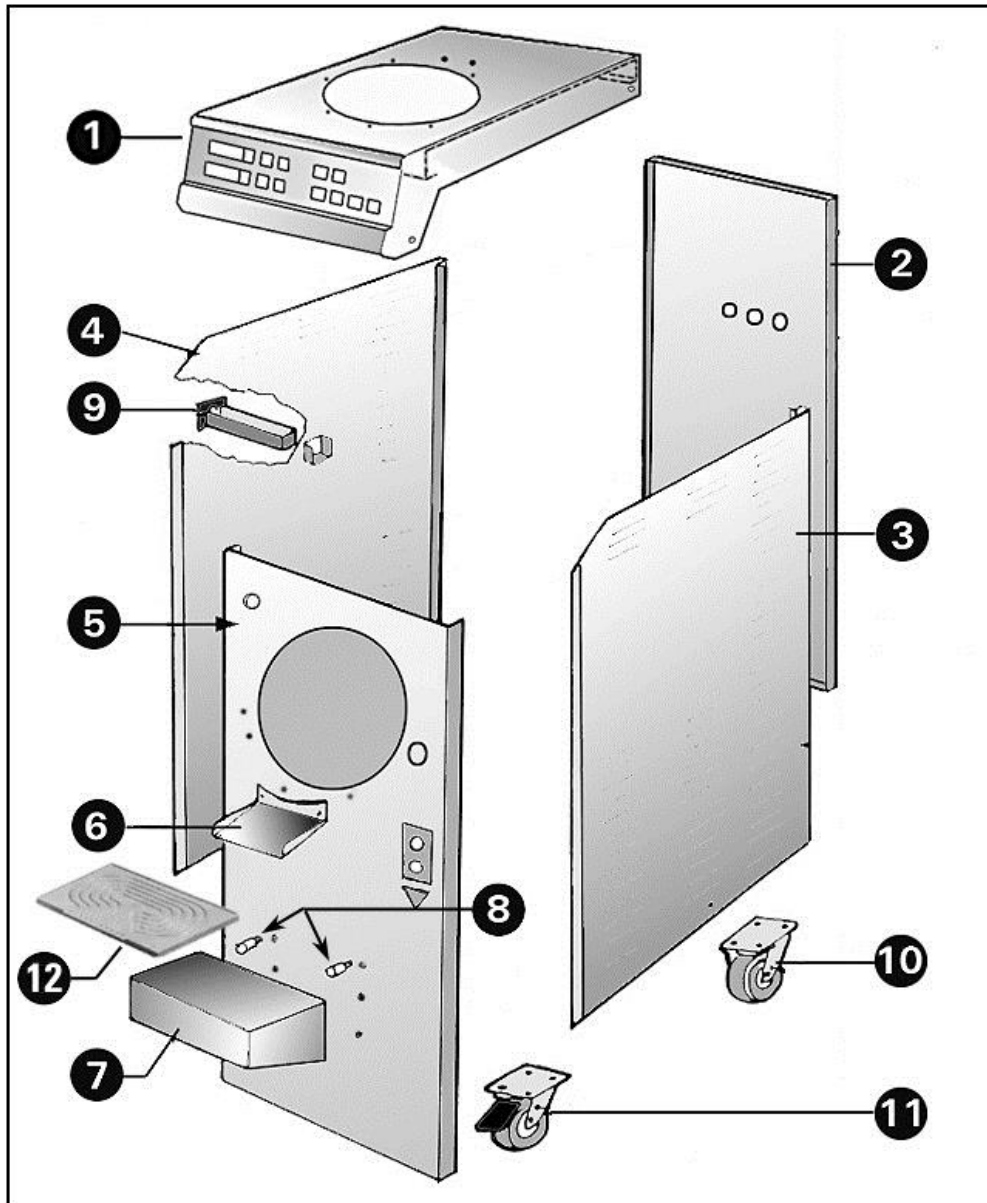
## ⇒ "Wash tap" unit



Pos:	Name	Code
1	Mouth washing	ME-8693.0
2	Compass tube washing	PMT-6894.0
3	Metal ring with Tube Guides	ME-7377.2/20
4	Flexible for Shower 1/2 " X 2 MT	ME-0084/2
5	Cover Lever Tap	ME-7370.0
6	Lever Tap	ME-8183.0
7	Complete Compass Tap	ME-7218.3/01
8	Washer Breech M50E	ME-2159.0
9	Metal ring Breech M50E	ME-2158.0
10	3/8" ball type faucet	RG-7696.6

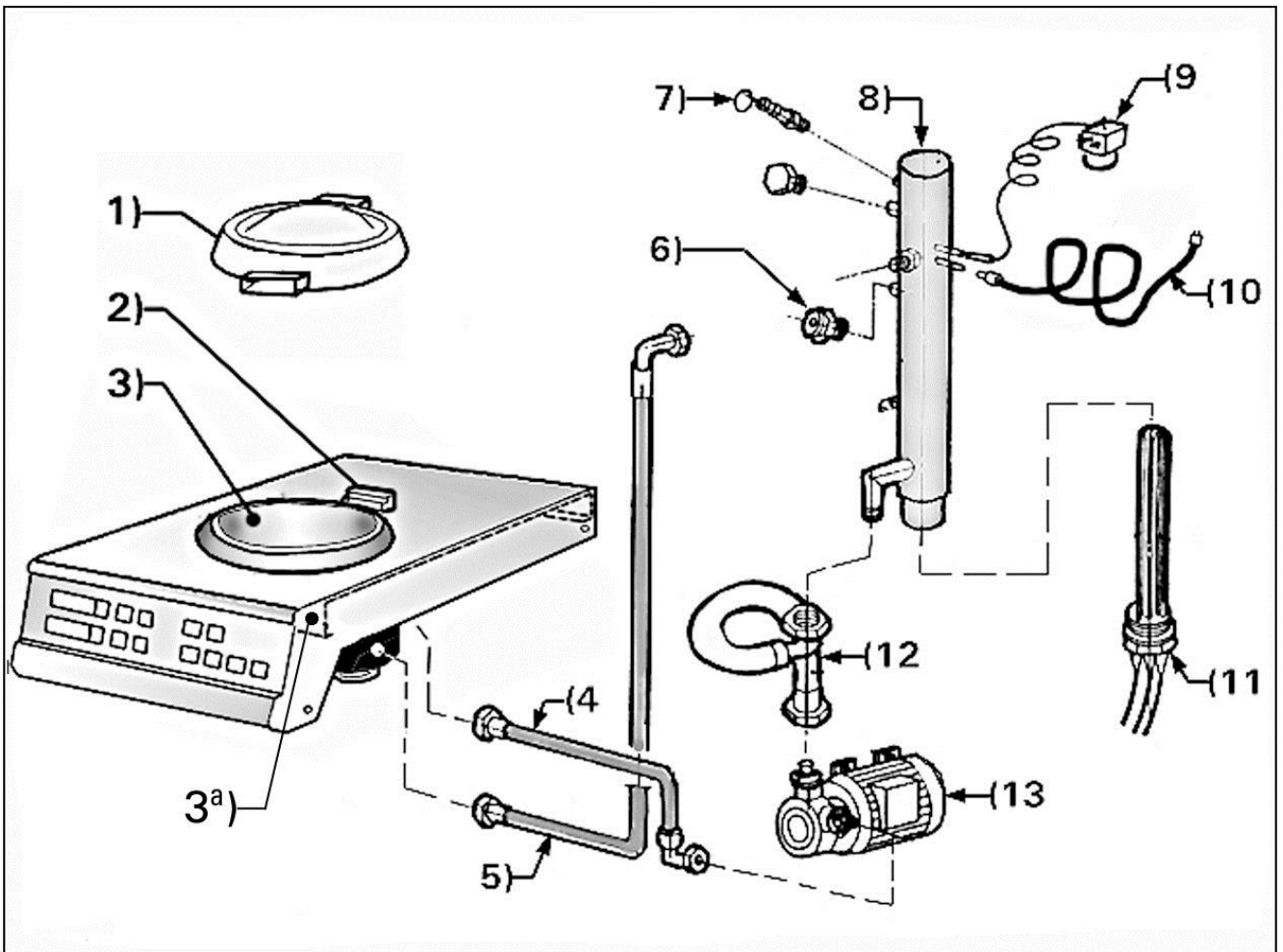


## ⇒ Housing unit



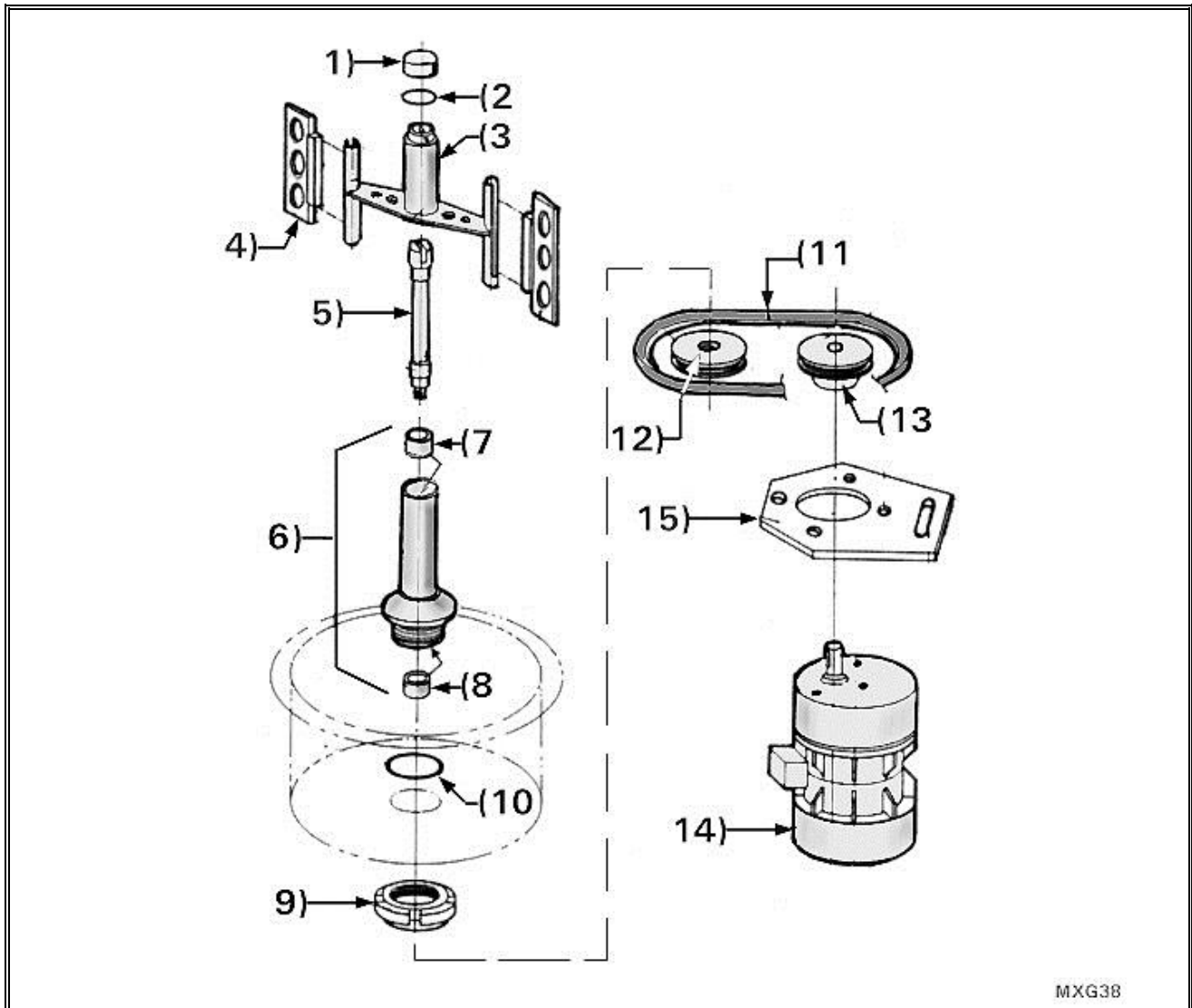
Pos. N°	Name of component	MIXGEL 30 Code	MIXGEL 50 Code
1	Machine cover	PMT-17976.2/10	PMT-18017.2/10
2	Rear panel	ME-8203.2	ME-8204.2
3	Right side panel	ME-8415.0	ME-8417.0
4	Left side panel	ME-8416.2	ME-8418.2
5	Front panel	PMT-18346.3	PMT-18627.3
6	Ice-cream output chute	ME-21288.2	ME-21288.2
7	Ice-cream tank support	ME-8180.0/10	ME-8180.0/10
8	Support locking screw (n° 6)	ME-3345.0	ME-3345.0
9	Ice-cream leakage drawer	ME-0044	ME-0044
10	Fixed wheel	PC-5165.6	PC-5165.6
11	Castor wheel with brake	PC-5166.6	PC-5166.6
12	Tappeto	ME-21463.0	ME-21463.0

## ⇒ Heating tank unit with glycol circuit



Pos. N°	Name of component	MIXGEL 30 Code	MIXGEL 50 Code
1	Macrolon cover	PMT-18035.3/10	PMT-18035.3/10
2	Hinge	PMT-18034.3/10	PMT-18034.3/10
3	Complete tank	VC-18066.4	VC-18066.4
3a	Piano Distanziatore	PMT-18018.2/02	PMT-18018.2/02
4	Hose from tank to pump	PMT-7034.4	PMT-7034.4
5	Hose from tank to heater	PMT-7035.4	PMT-7035.4
6	Glycol peep hole	TR-11162.6	TR-11162.6
7	Safety valve	MX-0025	MX-0025
8	Heater	PMT-6831.3	PMT6831.3
9	Safety thermostat	TR-17856.6	TR-17856.6
10	TEMPERATURE SONDE	MXT-5997.3/31	MXT-5997.3/31
11	Electric heating element kW 4	TR-6863.6	TR-6863.6
12	Hose from heater to pump	MXT-6034.6	MXT-6034.6
13	Glycol pump complete with connectors	PO-5543.6	PO-5543.6

## ⇒ Pasteuriser stirrer unit

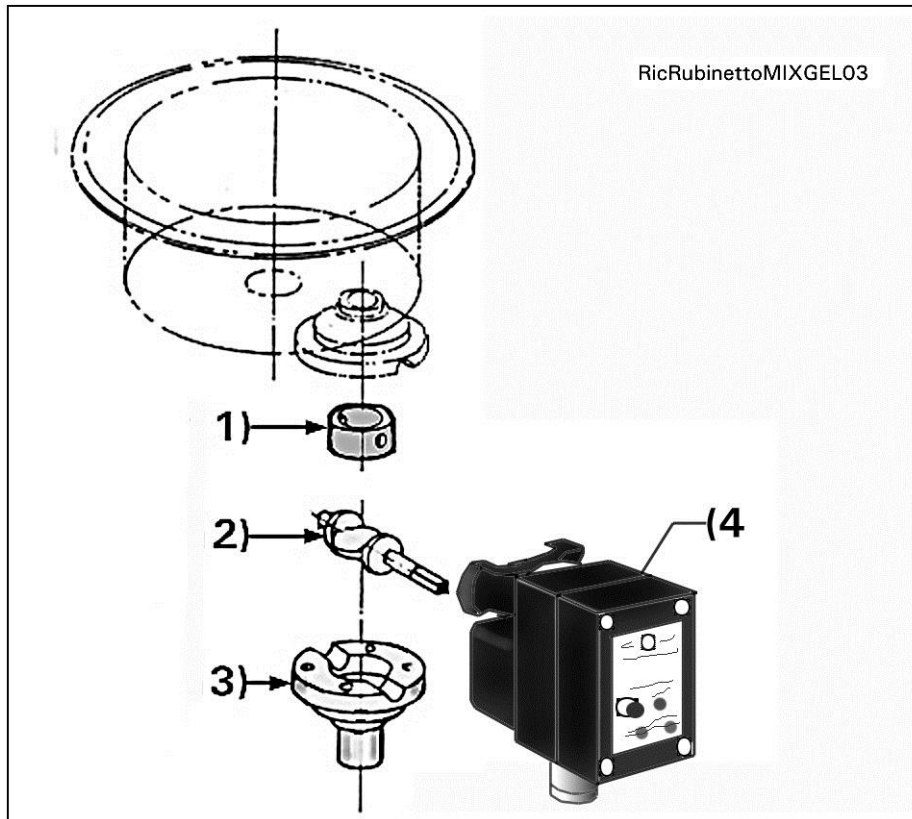


MXG38

Pos.	Name	Code
1	Stirrer cover	MXT-6088.0
2	Cover gasket	AV-00064
3	Stirrer casing	PMT-6873.2/10
4	Stirrer scraper blades	PMT-6845.0/20
5	Stirrer shaft	PMT-6837.0/20
6	Complete bushing pipe	PMT-6832.3/10
7	Upper bush	CS-6834.6
8	Lower bush	CS-6834.6
9	Pipe blocking nut	PM-067
10	Pipe gasket	PM-066
11	Transmission belt	RO-0003
12	Driven pulley	PMT-6824.0/20
13	Driving pulley	PMT-6823.0
14	Geared motor	RV-5968.6/10
15	Slab motion reducing	PMT-6826.0/21
16	Dice M8 SX UNI 5588 inox	DAI-0003/S

N.B. The pieces shown above are the same for both **MIXGEL 30** and **MIXGEL 50**.

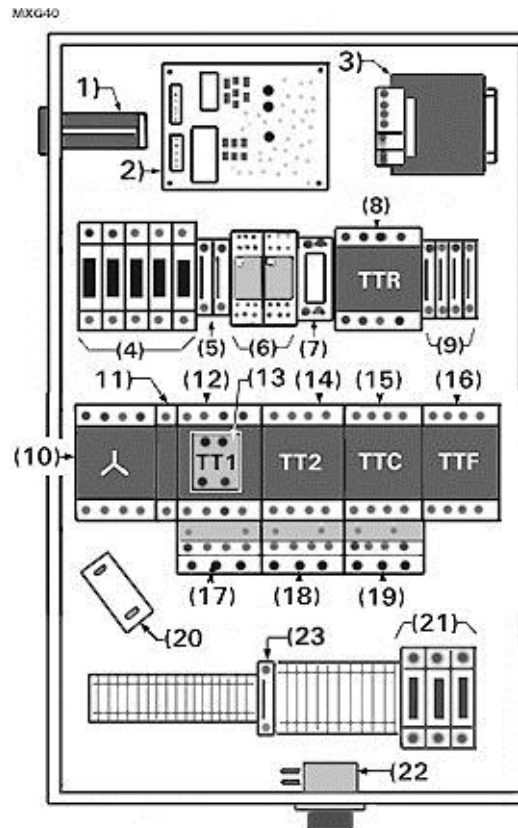
## ⇒ Pasteuriser tap unit



Pos.	Name	Code
1	Throttle tap gasket	PMT-6866.6
2	Throttle tap core	PMT-6865.6
3	Lower throttle half tap	PMT-6821.2
4	Activator	CC-24801.6

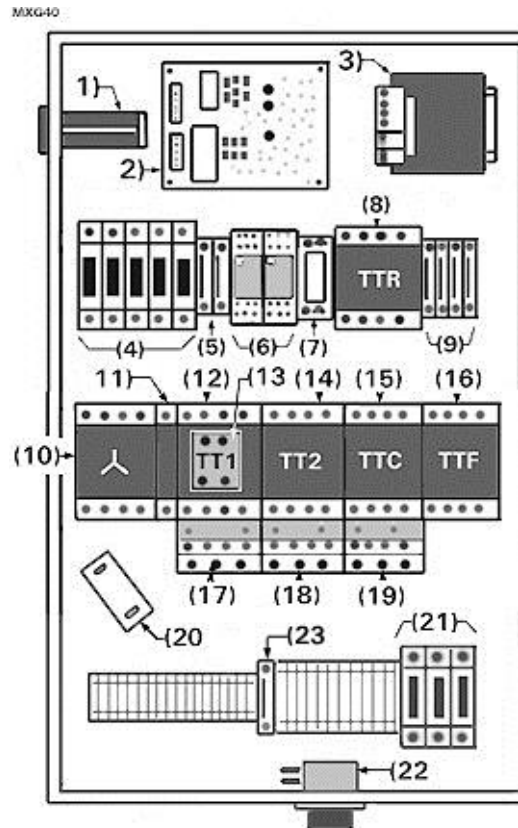
N.B. The pieces shown above are the same for both **MIXGEL 30** and **MIXGEL 50**.

## ⇒ General electrical box: MIXGEL 30 and 50 V.200 - V.220



Pos.	N° of pcs.	Name of component	MIXGEL 30 Code	MIXGEL 50 Code
1	1	MTR 11 glycol heat regulator	CC-6893.6/10	CC-6893.6/10
2	1	Electronic brake card	CC-11594.6	CC-11594.6
3	1	Transformer 160 VA - 220/380 24 200 24	FR1-032 FR1-032/2B	FR1-032 FR1-032/2B
4	3	Fuses 10 x 38 25A (MIXGEL30) 32A (MIXGEL50) type AM	E-00067/25AM	E-00067/32AM
	2	Fuses 10 x 38 16A type AM	E-00067/16AM	E-00067/16AM
5	2	Glass fuses 5 x 20 6,3A. retarded type	CC-9656.6	CC-9656.6
6	2	Relay (glycol pump and boiler stirrer)	T1-0209	T1-0209
7	1	Relay (compressor heating element and START button)	CC-10375.6	CC-10375.6
8	1	Contactor electric heating element type LC1 D12 6B7	CC-16321.6	CC-16321.6
9	2	Glass fuse 5 x 20 2A rapid type	ME-0053/2	ME-0053/2
	2	Glass fuse 5 x 20 6,3A retarded type	CC-9656.6	CC-9656.6
10	1	Star type closure contactor type LC1 D09 D7	CC-16320.6	CC-16320.6
11	1	Electric interlock LAD 9R1V	CC-16325.6	CC-16325.6
12	1	Motor contactor 1st speed type LC1 D12 6B7	CC-16321.6	CC-16321.6
13	1	Auxiliary contactor type LAD N11	CC-16327.6	CC-16327.6
14	1	Motor contactor 2nd speed type LC1 D12 6B7	CC-16321.6	CC-16321.6
15	1	Refrigerator compressor contactor type LC1 D12 6B7	CC-16321.6	CC-16321.6
16	1	Motor brake contactor type LC1 D18 6B7	CC-16322.6	CC-16322.6
17	1	Thermal motor protection unit 1st speed: MIXGEL 30 9-13A LRD-16 MIXGEL 50 12-18A LRD-21	CC-16331.6	CC-16332.6
18	1	Thermal motor protection unit 2nd speed: MIXGEL 30 12-18A LRD-21 MIXGEL 50 17-25A LRD-22	CC-16332.6	CC-16333.6
19	1	Compressor thermal motor protection unit: MIXGEL 30 9-13A LRD-16 MIXGEL 50 12-18A LRD-21	CC-16331.6	CC-16332.6
20	1	TA amperometric transformer	ME-0015	ME-0015
21	3	Heating element fuses 10 x 38 16A type GL	E-00067/16GL	E-00067/16GL
22	1	Safety thermostat for glycol heater	MX-0042	MX-0042
23	1	Glass fuse 5 x 20 0,5° rapid type	ME-0053/0	ME-0053/0

## ⇒ General electrical box: MIXGEL 30 and 50 V.400



Pos.	N° of pcs.	Name of component	MIXGEL 30 Code	MIXGEL 50 Code
1	1	Glycol heat regulator MTR 11	CC-6893.6/10	CC-6893.6/10
2	1	Brake electronic card	CC-11594.6	CC-11594.6
3	1	Transformer 160 VA - 220/380 24 240/415 24	FR1-032 FR1-032/4	FR1-032 FR1-032/4
4	3 2	Fuses 10 x 38 20A (MIXGEL30) 25A (MIXGEL50) type AM Fuses 10 x 38 6A tipo AM	E-00067/20AM E-00067/6AM	E-00067/25AM E-00067/6AM
5	2	Glass fuses 5 x 20 6,3A. retarded type	CC-9656.6	CC-9656.6
6	2	Relay (glycol pump and boiler stirrer)	T1-0209	T1-0209
7	1	Relay (compressor heating element and START button)	CC-10375.6	CC-10375.6
8	1	Heating element contactor type LC1 D12 6B7	CC-16321.6	CC-16321.6
9	2 2	Glass fuse 5 x 20 6,3A retarded type Glass fuse 5 x 20 6,3A retarded type	CC-9656.6 CC-9656.6	CC-9656.6 CC-9656.6
10	1	Star type closure contactor LC1 D09 D7	CC-16320.6	CC-16320.6
11	1	Electric interlock LAD 9R1V	CC-16325.6	CC-16325.6
12	1	Motor contactor 1st speed type LC1 D12 6B7	CC-16321.6	CC-16321.6
13	1	Auxiliary contact type LAD N11	CC-16327.6	CC-16327.6
14	1	Motor contactor 2nd speed type LC1 D12 6B7	CC-16321.6	CC-16321.6
15	1	Refrigerator compressor contactor type LC1 D12 6B7	CC-16321.6	CC-16321.6
16	1	Motor brake contactor type LC1 D18 6B7	CC-16322.6	CC-16322.6
17	1	Thermal motor protection 1st speed: MIXGEL 30 4-6A LRD-10 MIXGEL 50 8-10° LRD-14	CC-16328.6	CC-16330.6
18	1	Thermal motor protection 2nd speed: MIXGEL 30 8-10A LRD-14 MIXGEL 50 12-18A LRD-21	CC-16330.6	CC-16332.6
19	1	Compressor thermal motor protection: MIXGEL 30 4-6A LRD-10 MIXGEL 50 5-8° LRD-12	CC-16328.6	CC-16329.6
20	1	TA amperometric transformer	ME-0015	ME-0015
21	3	Heating element fuses 10 x 38 10A type GL	E-00067/10GL	E-00067/10GL
22	1	Safety thermostat for glycol heater	MX-0042	MX-0042
23	1	Glass fuse 5 x 20 0,5A rapid type	ME-0053/0	ME-0053/0

## ➤ Gasket Flange Unit

Macchina	Periodo di Fabbricazione	Codice
Mixgel 30	<i>dal 1993 al 06 / 2003</i>	PM-081/10
Mixgel 50	<i>dal 1993 al 06 / 2003</i>	PM-082/10

Macchina	Periodo di Fabbricazione	Codice
Mixgel 30	dal 07 / 2003	PMT-20047.4/10
Mixgel 50	dal 07 / 2003	PMT-20048.4/10





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