

Titan Icd

ELECTRONIC HORIZONTAL BATCH FREEZER

MACHINERY WORLD

MANUAL OF USE AND
MAINTENANCE



Series 01

Titan 35

Titan 45

Titan 60

Titan 75

Titan 100

 **FRIGOMAT**
macchine per gelato



Azienda Certificata
UNI EN ISO 9001:2000

Numero Certificato
50 100 5650

Congratulations on purchasing a **FRIGOMAT** machine.

The present manual, enclosed to the machine, is an integrant and essential part of the machine and shall be delivered to the final user. Before performing any kind of operation, it is recommended to carefully study the reported instructions, as only a careful reading allows you to get the highest performance from your machine. The following pages report all information necessary to correctly install, commission, adjust and service your machine. FRIGOMAT S.r.l. reserves the right to carry out all changes necessary to improve its product or manual without prior notice and to insert them in the subsequent issues.

IMPORTANT

We recommend carefully reading this manual before using your FRIGOMAT machine.

In your own interest, pay close attention to the following warnings:



The non-observance of this warning can jeopardize the user's health and the correct operation of the machine.



Carefully meet these warnings to get the best performance from your machine.

The machine is covered by guarantee according to the conditions reported in the "GUARANTEE CARD " enclosed to the machine, which shall be duly filled up and sent back to:

FRIGOMAT s.r.l., via 1° Maggio 26862 GUARDAMIGLIO (LODI) – ITALIA

Please write your machine serial number in the following field

Serial number

Distributor's stamp

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1 TRANSPORT, HANDLING AND STORAGE.

1.1 PRELIMINARY INSPECTION

The machine travels at the customer's risk. In case packing is damaged, immediately inform the carrier.

Immediately inform the carrier also in case of damage to the machine, even if you open the packing a few days after the delivery.

It is always advisable to accept the goods **SUBJECT TO INSPECTION**.

The equipment shall be assembled with great care: falls and shocks can damage it without showing external damages.



The storage temperature shall range within +5 and +45°C.

The humidity shall range from 30 to 95%.

Packing elements such as plastic bags, nails, expanded polystyrene, cartons, etc. must be left out of children's reach.

1.2 PACKING DIMENSIONS

MODEL	CASE		BOX PALLET	
	SIZES (CM)	WEIGHT (KG)	SIZES (CM)	WEIGHT (KG)
TITAN LCD 100	103,5X63X172	425	104,5X64X172	405
TITAN LCD 75	945X63X172	390	95,5X64X172	370
TITAN LCD 60	945X63X172	360	95,5X64X172	340
TITAN LCD 45	945X63X172	340	95,5X64X172	320
TITAN LCD 35	945X63X172	300	95,5X64X172	280

2. MARKINGS AND GRAPHICS



Never touch the machine with hands and tools during production or maintenance and cleaning operations, without making sure that the machine is in STOP position, the main switch is off and/or the multipolar plug disconnected.

FRIGOMAT S.r.l. declines any liability for accidents deriving from an improper use of the machine due to the non-compliance with the above-mentioned recommendations.

The machine is provided with a plate and some pictograms, which together with the present manual allow using the machine in safer conditions.



Machine data plate

The adhesive label located on the back of the machine allows identifying the model and reports the following indications:

Manufacturer's name and address; Machine model and version; Serial number; Rated electrical characteristics; Type and weight of employed Freon; Manufacturing year.

Indication

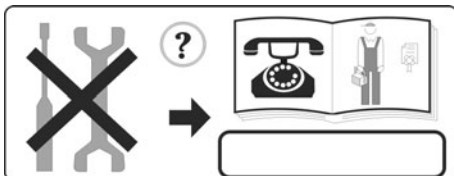
Points of application of hoisting devices.



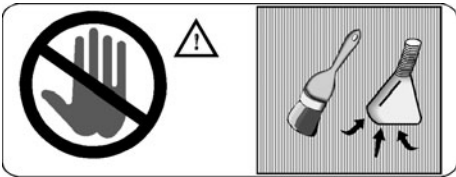
The following plate is placed on the four sides of the frame lower part and shows the points where lifting hooks shall be positioned in order to perform this operation in safe conditions. By means of a cross screwdriver unscrew the two side panels and then position the hoisting devices into the apposite points. Make sure that they cannot accidentally come out during hoisting operations.

Warning!

Maintenance allowed to qualified personnel only.



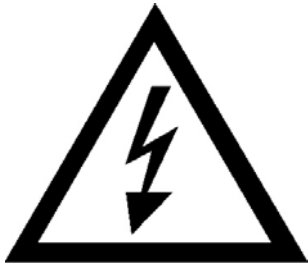
The following plate placed on the machine back panel forbids extraordinary maintenance operations and/or repairs delegating them to authorized people only, whose address is indicated in the provided space.



Warning!

Do not touch with hands.

The following plate placed on the back of air-cooled machines shows that cleaning operations on the heat exchanger shall be carried out only by means of a brush or an exhauster.



Warning!

High voltage inside, danger of fulguration.

The following plate is placed on the electric box cover and warns the operator that in no case the cover must be removed avoiding this way the risk of lethal fulguration. Also in this case, maintenance operations on internal components must be performed by authorized personnel only.

3. INSTALLATION

3.1 FIELD OF USE

Batch freezers TITAN LCD are expressly designed and built for batching mixtures for ice-cream and for the production of slush.

3.2 LIMITS OF USE

Never use the machine with variable supply voltage and/or more than +/- 10% of the value showed in the nameplate or when the feeder is damaged;

Do not use the machine for purposes different from the ones indicated in the present manual;

Do not use the machine in explosive environment;

Do not wash the machine with high-pressure jets of water or poisonous substances;

Do not expose the machine to excessive heat or humidity;

Do not use completely unbalanced mixtures and/or quantities not in compliance with the specifications reported on the packing.

3.3 MACHINE OUTFIT

- | | |
|---------------------------------------|---------------------------------|
| - Cleaning rod | - Door gasket |
| - Stiff paddle | - Door closure gasket |
| - Agitator scraping blades | - FRIGOMAT lubricant |
| - Plugs for agitator centering device | - Manual of use and maintenance |
| - Door closure spring | - Declaration of conformity |
| - Stuffing box for agitator | - Warranty certificate |
| - Basket dismantling tool | |

3.4 COMMISSIONING

Bring the machine to the place of employment and check that everything is all right as far as installation concerns:

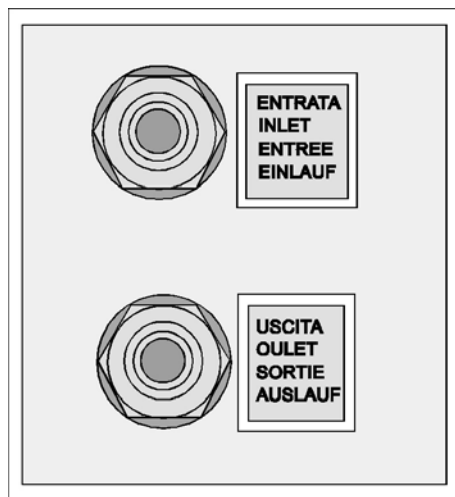
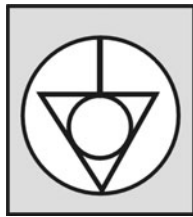
Power supply

Water supply

Suitable run-off pit for water

- Lock the machine by means of the apposite lever located on the front wheels;
- Place the machine far from walls or other obstacles (at least 10 cm sideways and 30 on the back). In case the machine is provided with water-cooled condenser, the distance between the wall and the back panel can be reduced to 10 cm.
- Make sure that the supply voltage and power comply with the values reported on the rating plate placed on the back panel;
- Connect the machine to the mains; upstream the machine, arrange an omnipolar main switch with minimum contact opening equal to 3 mm and adequate power, interlocked with fuses to allow plugging and unplugging at open circuit.
- Connect the feeder to a type-approved plug: the feeder shall be well stretched, to avoid rolling and overlapping. It shall not be exposed to possible shocks or tampering. It must be far from liquids, water and heat sources. It shall not be damaged, otherwise make it be replaced by qualified personnel with another section and type 5G4 H07RN-F version 400 V), 5G6 H07RN-F (version 220 V / 3) before connecting the machine to the mains.

- Arrange the connection of the yellow-green wire to a good earth connection.



- Put the machine metallic parts to earth by means of the appropriate equipotent fastening screw located on the back under the frame and marked by the symbol showed on the left.
- Make sure that the water supply system is provided with sufficient pressure for a correct operation of the condensing system. A residual pressure ranging between 1 bar and 3 bars is considered suitable.
- Connect the condensing water inlet hose to the inlet showed in the picture by means of a rubber hose Ø1/2". Interpose a cut-off cock at the operator's reach.
- Connect the condensing water outlet hose to the outlet showed in the picture by means of a hose connector Ø1/2" and bring it to the discharge.
- Both for inlet and outlet connections it is advisable to make use of linized hoses suitable to withstand pressures up to 10 bar and appropriate hose clamps DIN 3017.
- The water outlet hose shall have a min. inclination of 3 cm for each meter of length.
- In case of water condensing it is necessary to check that the water valve works correctly.
- After both inlet and outlet hoses have been connected, open the cut-off cock and make sure that the discharge does not leak liquid when the machine is not working. If this is the case, contact a qualified customer service.
- After the main switch has been turned on press **AUTOMATIC** pushbutton to start the compressor motor; after a few seconds the condensing water shall regularly come out of the outlet hose end at a temperature of 35°C. Press **STOP** to stop the machine.
- Check for the correct direction of rotation of the agitator motor: apply voltage to the machine, press **AGITATION** and through the hopper grid check that the agitator direction of rotation is counter-clockwise. On the contrary, exchange the two wires of the feeder between themselves.
- Press pushbutton **STOP** to stop the machine. Avoid making the machine running unloaded.



- With the machine in STOP position, unlock the door by lifting the lever and subsequently turn it to the left.
- Slide out the agitator, check and lubricate with FRIGOMAT lubricant (supplied with the machine) and the agitator stuffing box.
- The ideal temperature shall range between 15°C and 35°C.
- The ideal humidity shall range between 30 and 60%.



FRIGOMAT s.r.l. declines any liability for damages to persons and/or things due to a wrong installation and/or the non-compliance with the accident prevention standards in the place of work. Never touch the machine with hands, both when it is on duty and during cleaning and maintenance operations, without making sure that the machine has been stopped by means of pushbutton **STOP** and the main switch has been turned off. Never clean the machine by means of high-pressure jets of water. Never close the cut-off cock while the machine is running. Pay attention not to damage the feeder. In case of necessity, make it be replaced.

In case the machine provided with water-cooling is left at a room temperature inferior to 0°C, it is necessary to run off all water present inside the condenser before starting up the machine.

4. SAFETY DEVICES

Shearing-prevention system: realized by means of a safety circuit in conformity with the European standard; it intervenes when the door is opened and/or the grid on the hopper is lifted and temporarily switches the machine to STOP. The following message appears on the display “ALARM. OPEN DOOR EMERGENCY”. Do not use this device to stop the machine during batching. Always use the function STOP.

The machine also carries out a series of controls during production:

Production control

Carried out by the microprocessor by means of a current transformer. A wattmetric control of the agitator motor is performed.

Amperometric safety control

During temporized batching cycles, the electronic card carries out the reading of the agitator motor power input and stops the cycle in case the absorbed current value reach or exceed the one foreseen on the testing card.

Batch freezing safety timer

It intervenes 35 minutes after batching start in case the minimum consistency value established by the manufacturer is not reached. The compressor and the agitator stop, the following message is visualized on the display “ALARM. BATCHING TIME-OUT”, and an intermittent acoustic signal (beep) is issued.

It is necessary to check for the presence of anomalies in the cooling circuit and/or check the mixture dosage.

Anti-icecream in the centre

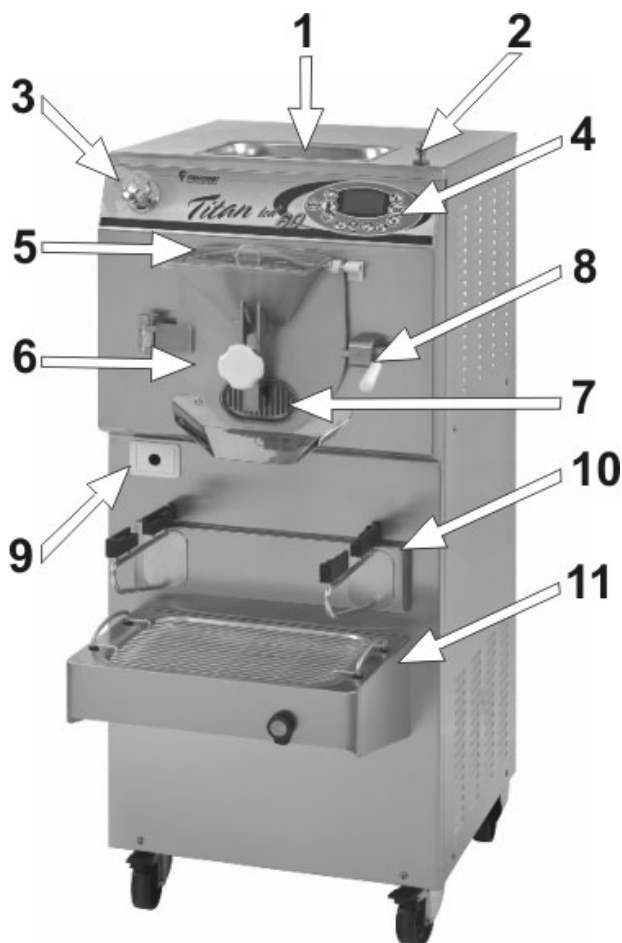
In case the ice-cream, during batching, becomes a consistent mass, which can no more be worked with the paddle and is collected in the centre of the agitator, the electronic card stops the compressor and switches the agitator motor to high speed for 45”. Then the machine automatically resumes the interrupted batching cycle.

Auto-reset of the logic unit in case of power shortage

Stops the machine allowing manually resetting the functions.

5. OPERATION

5.1 CONTROLS



1. Object-holding compartment

It is used to lay topping and crumbs containers and everything is used for decorations.

2. Hand-held shower unit

Equipped with a pulling-out flexible hose, it allows the operator to wash the cylinder and the agitator. Never direct the jet of water towards the side panels.

3. Water tap

To open and close water for the hand-held shower unit.

4. LCD pushbutton panel

It allows selecting the working programs.

5. Protection grid

It allows the operator to charge the product in safety.

6. Door

Closes the cylinder during working phases. It can be easily removed for cleaning.

7. Delivery door

It is used to take out up ice-cream and to discharge water during cylinder cleaning. To unlock it, loosen the knob and push it upwards.

8. Door locking handle

Closes the door with the lever in lowered position. To open lift the lever upwards and turn the door to the left.

9. Drip drawer

Allows collecting liquid leakages coming from the cylinder stuffing box.

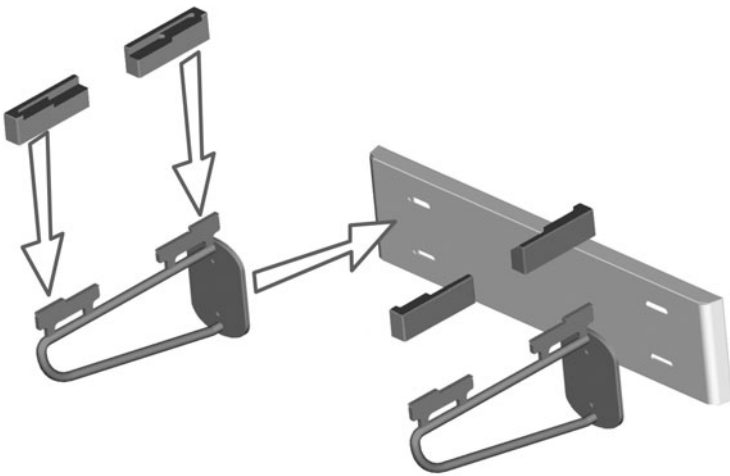
10. Basin-holding brackets

Allow holding the basins during ice-cream delivery fast.

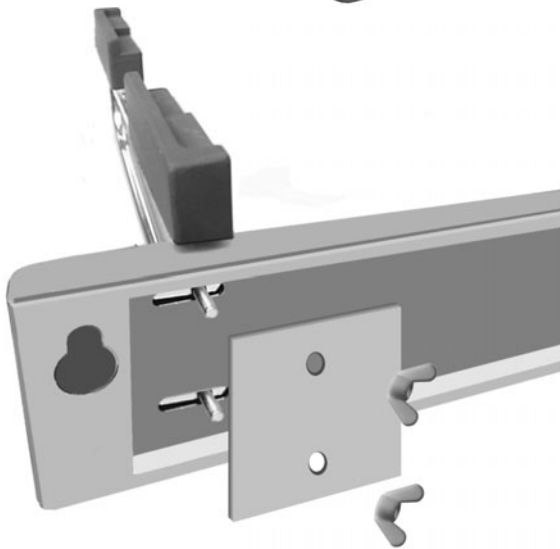
11. Balcony with collecting tank

Supports pits and buckets for washing; thanks to a discharge plug it allows a quick cleaning.

5.2 ASSEMBLY AND ADJUSTMENT OF BASIN SUPPORT



Assemble the two steel brackets as shown in the picture.
Pay attention to UP and DOWN direction with reference to the fixing slots on the back of the support.
Place the rubber pads in their seats as shown in the picture.

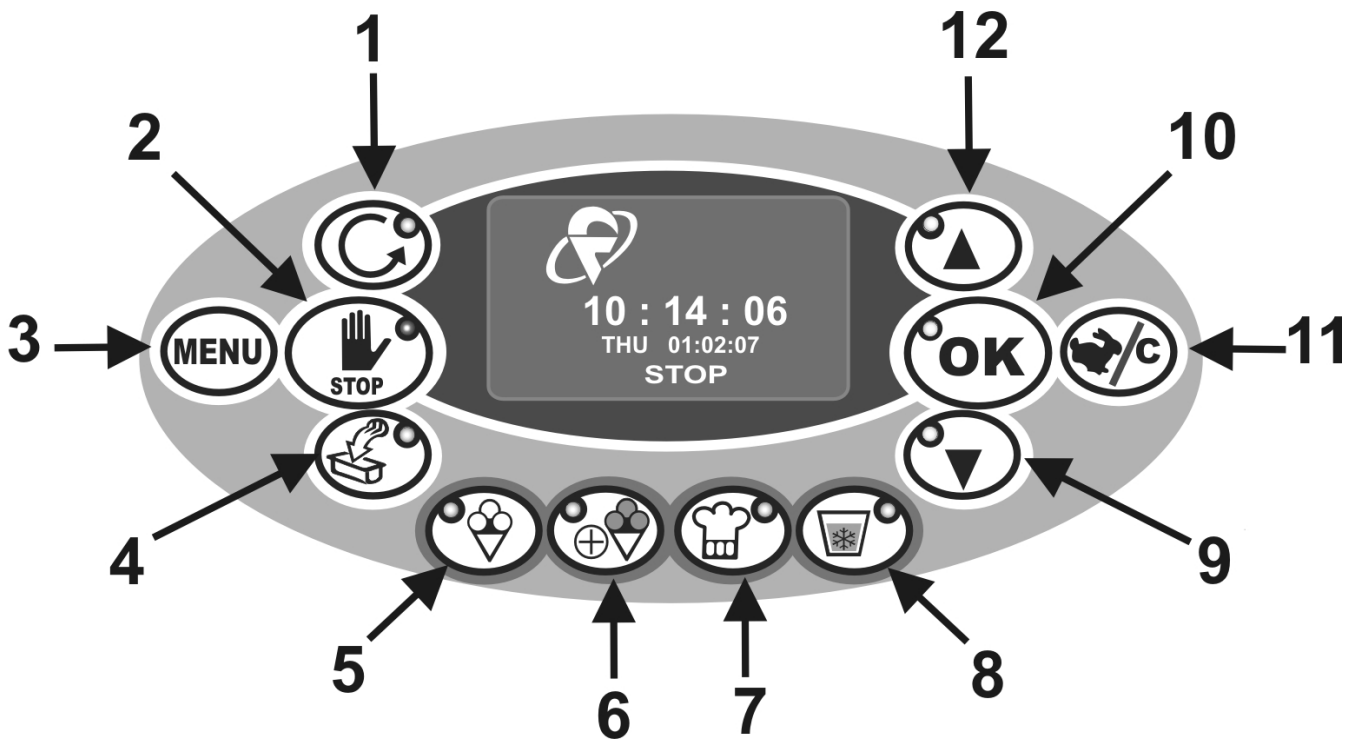


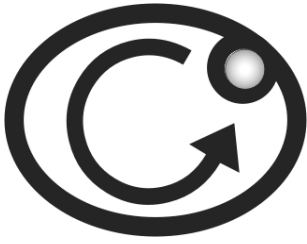
Place two steel sheet shims and screw down the 4 wing nuts without tightening them.



Position the basin in the corresponding seat obtained by means of the rubber pads. Adjust the position of the brackets, making them slide along the support.
When the basin is sufficiently hold by the supports, tighten the wing nuts.

5.3 CONTROL PANEL





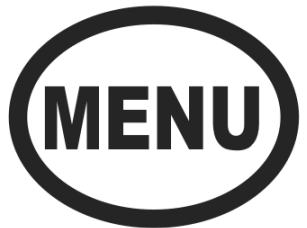
1. AGITATION

When the machine is set to STOP, press AGITATION to start the agitator motor only at low speed; in any other operating phase of the machine, when AGITATION is pressed, the agitator motor remains in function at low speed and the compressor stops. To stop agitation, press pushbutton STOP.



2. STOP

Whatever operating phase the machine is running, press STOP to stop the machine and cancel the current function. Both in automatic and semiautomatic cycles it is advisable not to stop the machine when the ice-cream is next to the maximum consistency; this expedient prolong the life of the transmission belts and the agitator motor.



3. MENU

With the machine set to STOP, press MENU to access the main screen. You can choose to follow one of the 24 pre-set recipes, make changes or create completely new ones from this screen.



4. EXTRACTION

With the machine set to STOP, press EXTRACTION to start the agitator motor at low speed and after a delay of a few seconds, the speed is automatically switched too high.

In any other operating phase of the machine, by pressing EXTRACTION the agitator motor is switched, after a delay of a few seconds, from low to high speed and the compressor is disabled.

With the machine in extraction mode, press EXTRACTION to enable the compressor for 15" ("cold in extraction" function).



5. AUTOMATIC CYCLE

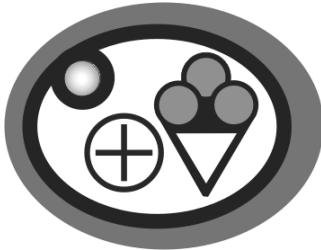
With the machine set to STOP, press AUTOMATIC to start the agitator motor at low speed. After a few seconds the compressor motor, the motor fans (for air-condensed machines only) and the electronic module for consistency control start. This last one allows to reach the best compromise between batching time and ice-cream consistency, independently from the kind of mixture used, provided that is within the minimum and maximum quantities allowed by the machine capacity.

The AUTOMATIC cycle is recommended when you want to batch freeze quantities of products ranging between the minimum and medium value declared for each model or with water-based fruit mixtures.

6. AUTOMATIC HARD CYCLE

With the machine set to STOP, press AUTOMATIC HARD to start the agitator motor at low speed. After a few seconds the compressor motor, the motor fans (for air-condensed machines only) and the electronic module for consistency control start. This last one allows reaching the best ice-cream consistency, independently from the kind of mixture used, provided that is within the minimum and maximum quantities allowed by the machine capacity.

The AUTOMATIC HARD cycle is recommended when you want to batch freeze quantities of product ranging between the medium and the maximum value declared for each model, or in case of milk-based creamy mixtures even with high sugar and alcohol contents.



7. SEMIAUTOMATIC CYCLE

With the machine set to STOP, press SEMIAUTOMATIC to select whether you want to batch freeze with consistency amperometric control or working time control.

While programming the semiautomatic cycle, it is possible to batch freeze at high speed (Turbo function).

Thanks to this possibility, the semiautomatic cycle is particularly useful to batch freeze mixtures able to guarantee high air incorporation as well as excellent consistency levels for recipes, which are particularly “rich” in sugars and fats or simply when you are not satisfied with the result obtained with automatic cycles.



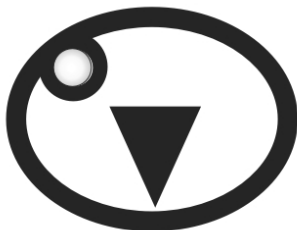
8. SLUSH CYCLE

With the machine set to STOP, press SLUSH to select the production of slush with the consistency amperometric control and continuous agitation (normal slush), or with working time control and cyclic agitation (coffee slush).



9. DOWN

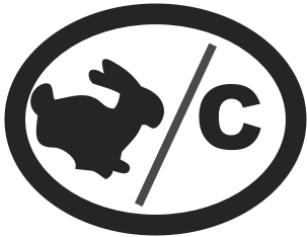
In programming, press the DOWN key to scroll the menu items or decrease the selected parameter value.





10. OK

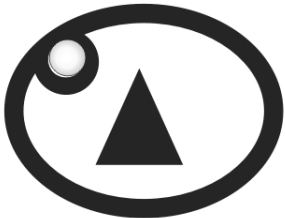
In programming, press OK to confirm the selection of the menu item or selected parameter value.



11. TURBO / CANCEL

This pushbutton carries out 2 functions:

1. During batch freezing (both in automatic and semi-automatic cycles) press TURBO to switch the machine to high speed for 15". At each subsequent press of TURBO button, this time is increased by 15"-steps until a maximum of 45".
During Turbo function, the compressor always remains in function, on condition that the product does not reach the max. consistency level allowed.
2. In programming, press CANCEL to cancel the selection of the menu item or the value of the selected parameter.



12. UP

In programming, press the UP key to scroll the menu items or increase the selected parameter value.

5.4 ICE-CREAM PRODUCTION



After the machine has been installed according to the instructions reported in chapter 3 and carefully cleaned and sanitized according to the instructions reported in chapter 6, proceed as follows to start up the ice-cream production:

- Check that the master switch is closed, the STOP button is lighted up and the water supply cock is open.
- Lift the hopper cover and pour the mixture into the cylinder. Observe the suggested minimum and maximum quantities allowed per cycle according to the following table:

MODEL	MIN (LITRES)	MAX (LITRES)
TITAN LCD 100	4	16
TITAN LCD 75	3,5	13
TITAN LCD 60	3	10
TITAN LCD 45	2,5	8
TITAN LCD 35	2	6



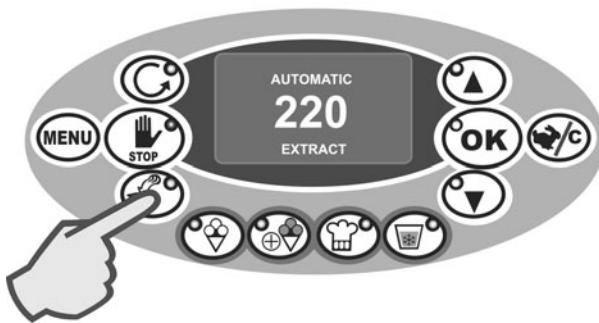
The non-observance of the minimum and maximum batch values can cause the malfunction of the machine and, sometimes, serious damages.

Minimum batches can cause an early wear of the scraping blades, which are next to the bottom of the batching cylinder.



To prolong the life of the scraping pads, it is advisable never to exchange the positions of their seats on the agitator.

- Reposition the cover on the hopper to prevent dust and other impurities get in contact with the mixture.



5.4.1 AUTOMATIC CYCLE

- The consistency value is visualized on the display during the whole batch freezing cycle.
- After a few minutes and after the best possible compromise between the batch freezing time and the consistency, in relation to the type and quantity of mixture used has been reached, the compressor stops, the display visualizes the message "Extract" and an intermittent acoustic signal (beep) warns the operator that it is possible to draw the ice-cream out. If this is not immediately possible, the agitator keeps on rotating until the consistency level falls down by a predetermined percentage value starting the ice-cream PRESERVATION cycle, which can be stopped with the delivery of the ice-cream.



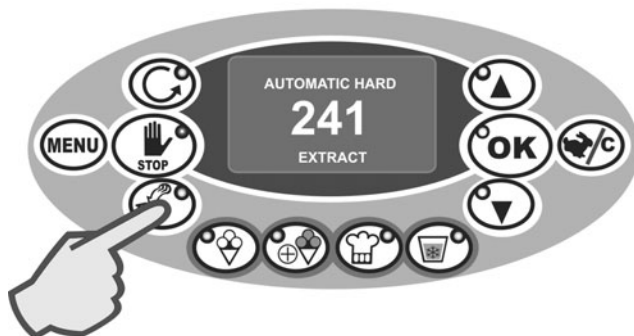
To obtain a thicker ice-cream, it is advisable to let the compressor run twice or three times.

- To deliver the ice-cream, loosen the knob on the door and push it upwards so as to open the delivery opening completely; then press EXTRACTION to bring the machine from low to high speed and to guarantee a fast ice-cream delivery from the freezing cylinder.
- After the ice-cream delivery has been completed, press STOP, close the door again and the machine is ready for another batch freezing.



It is advisable to use the AUTOMATIC batch freezing cycle for:

- Water-based fruit mixtures
- Mixtures with low content of sugars
- Small quantities



5.4.2 AUTOMATIC HARD CYCLE

- Press AUTOMATIC HARD to start up batch freezing.
- display during the whole batch freezing cycle.
- After a few minutes and after the best possible compromise between the batching time and the consistency, in relation to the type and quantity of mixture used has been reached, the compressor stops, the display visualizes the message "Extract" and an intermittent acoustic signal (beep) warns the operator that it is possible to draw the ice-cream out. If this is not immediately possible, the agitator keeps on rotating until the consistency level falls down the ice-cream PRESERVATION cycle, which can be stopped with the delivery of the ice-cream.



To obtain a thicker ice-cream, it is advisable to let the compressor run twice or three times.

To deliver the ice-cream, loosen the knob on the door and push it upwards so as to open the delivery opening completely; then press EXTRACTION to bring the machine from low to high speed and to guarantee a fast ice-cream delivery from the freezing cylinder. completed, press STOP, close the door again and the machine is ready for another batch freezing.



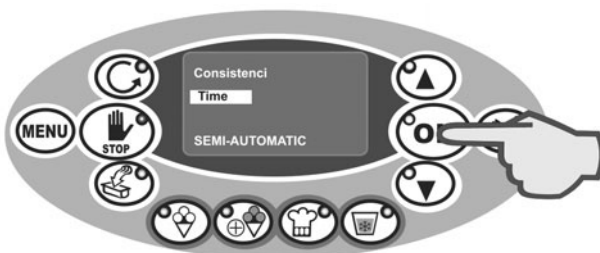
It is advisable to use the AUTOMATIC HARD batch freezing cycle for:

- Milk-based creamy mixtures
- Mixtures with high content of sugars, fats and alcohol
- Medium and big quantities

5.4.3 SEMI – AUTOMATIC CYCLE WITH CONSISTENCY CONTROL.

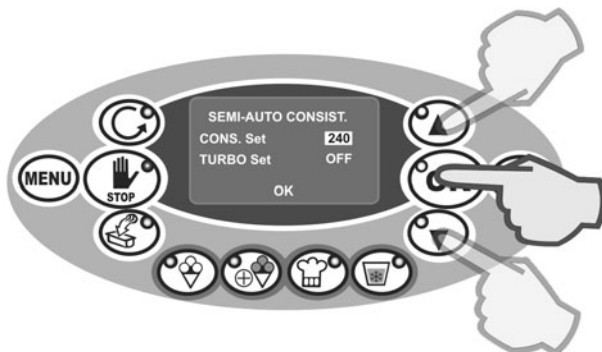


- Press “**SEMIAUTOMATIC**” to enter the batch freezing selection screen.
- The item “*Consistency*” is default. Press “**OK**” to enter the batch freezing parameter set-up menu.
- The first item, automatically selected, is the consistency SET expressed by a number ranging from 60 to 250: press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the value. Higher consistency levels correspond to higher numbers and viceversa.



The maximum programmable consistency value is 250, but such value cannot be reached with all mixtures.

For smaller mixture quantities, it is advisable not to select numbers closed to 250.

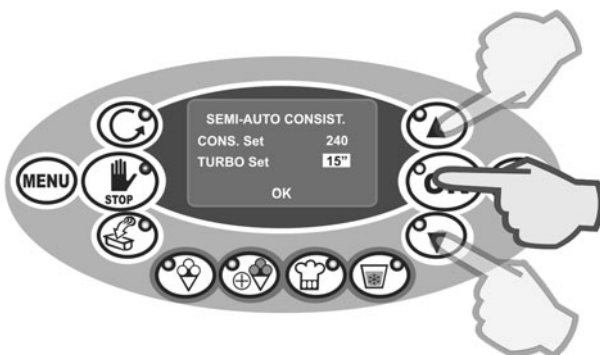


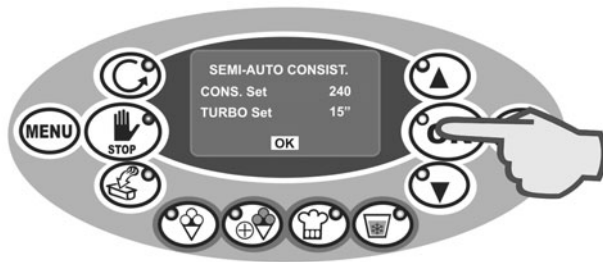
- Then press “**OK**” to confirm the consistency value and pass to the subsequent item.
- The second item to be programmed is the “Turbo” function, that is to say the period of time at the beginning of batch freezing during which you want to batch freeze at high speed. Press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the high speed agitation time from a minimum of 0” to a maximum of 5 minutes at steps of 15”.



A period of time ranging from 30” and 1’30” is recommended for milk-based mixtures or with such a content of facts to allow a good volume increase at end product.

Normally water-based fruit mixtures do not require high speed batch freezing.





- Then press **“OK”** to confirm the set-up time value.
- On the bottom of the display the message **“OK”** appears to confirm the correct cycle programming. Press **“OK”** again to start the cycle up.
- If during programming you have selected to batch freeze at high speed (TURBO function) for a certain period of time, at the beginning of the cycle the count-down of how many seconds or minutes it takes to the end of high-speed batch freezing is visualized. At the end of this time, the machine is automatically switched to low speed agitation and the display visualized the consistency numbers.
- After a few minutes and once the selected consistency level is reached, the compressor stops, the display visualized the message **“Extract”** and an intermittent beep is released to warn the operator that it is possible to deliver the ice-cream. If this is not immediately possible, the agitator keeps on rotating until the consistency level falls down by a predetermined percentage value starting the ice-cream PRESERVATION cycle, which can be stopped with the delivery of the ice-cream.

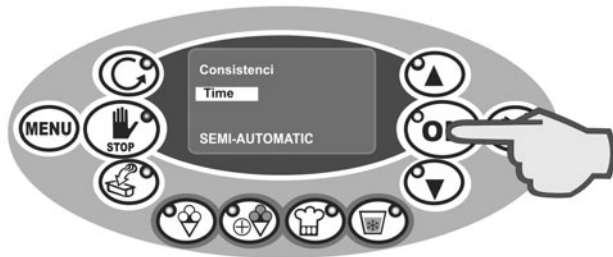
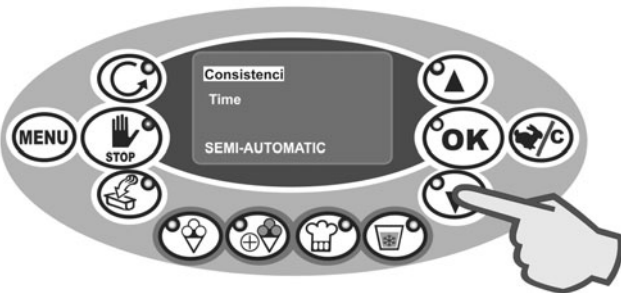


5.4.4 SEMI – AUTOMATIC CYCLE WITH TIME CONTROL.

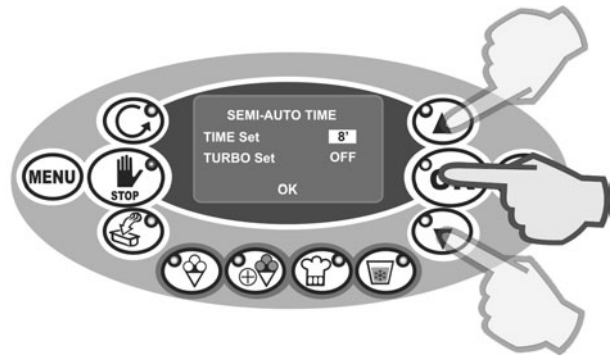
- With the machine in STOP mode, press “**SEMI-AUTOMATIC**” to enter the batch freezing mode selection screen.
- Press “**DOWN (▼)**” to select “**TIME**”. Press “**OK**” to enter the batch freezing parameters set-up menu.
- The first default item is the time SET expressed in minutes and ranging between 0’ and 30’: press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the value. Higher batch freezing times correspond to higher consistency values and viceversa.



The batch freezing time usually ranges between 7 and 10 minutes according to the mixtures and the quantity introduced. For low quantities of mixture introduced, do not select time superior to 5 – 7 minutes.

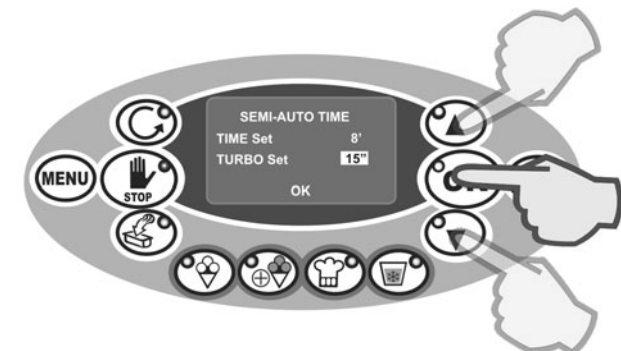


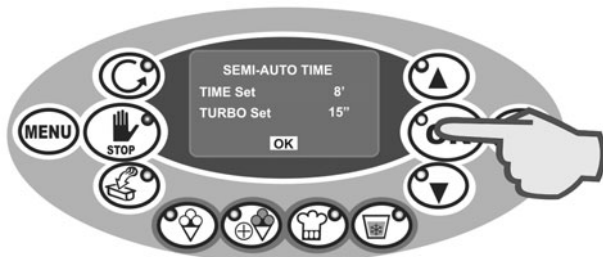
- Then press “**OK**” to confirm the consistency value and pass to the subsequent item.
- The second item to be programmed is the “Turbo” function, that is to say the period of time at the beginning of batch freezing during which you want to batch freeze at high speed. Press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the high speed agitation time from a minimum of 0” to a maximum of 5 minutes at steps of 15”.



A period of time ranging from 30” and 1’30” is recommended for milk-based mixtures or with such a content of fats to allow a good volume increase at end product.

Normally water-based fruit mixtures do not require high speed batch freezing.





- Then press **“OK”** to confirm the set-up time value.
- On the bottom of the display the message **“OK”** appears to confirm the correct cycle programming. Press **“OK”** again to start the cycle up.
- If during programming you have selected to batch freeze at high speed (TURBO function) for a certain period of time, at the beginning of the cycle the count-down of how many seconds or minutes it takes to the end of high-speed batch freezing is visualized. At the end of this time, the machine is automatically switched to low speed agitation and the display visualizes the remaining batch freezing time.
- After a few minutes and once the selected consistency level is reached, the compressor stops, the display visualized the message **“Extract”** and an intermittent beep is released to warn the operator that it is possible to deliver the ice-cream. If this is not immediately possible, the agitator keeps on rotating until the consistency level falls down by a predetermined percentage value starting the ice-cream PRESERVATION cycle, which can be stopped with the delivery of the ice-cream.



If a too high batch freezing time is set up and the product reaches the maximum consistency value allowed before the programmed time has expired, the display automatically reset the remaining time and warns the operator that it is possible to extract the ice-cream.

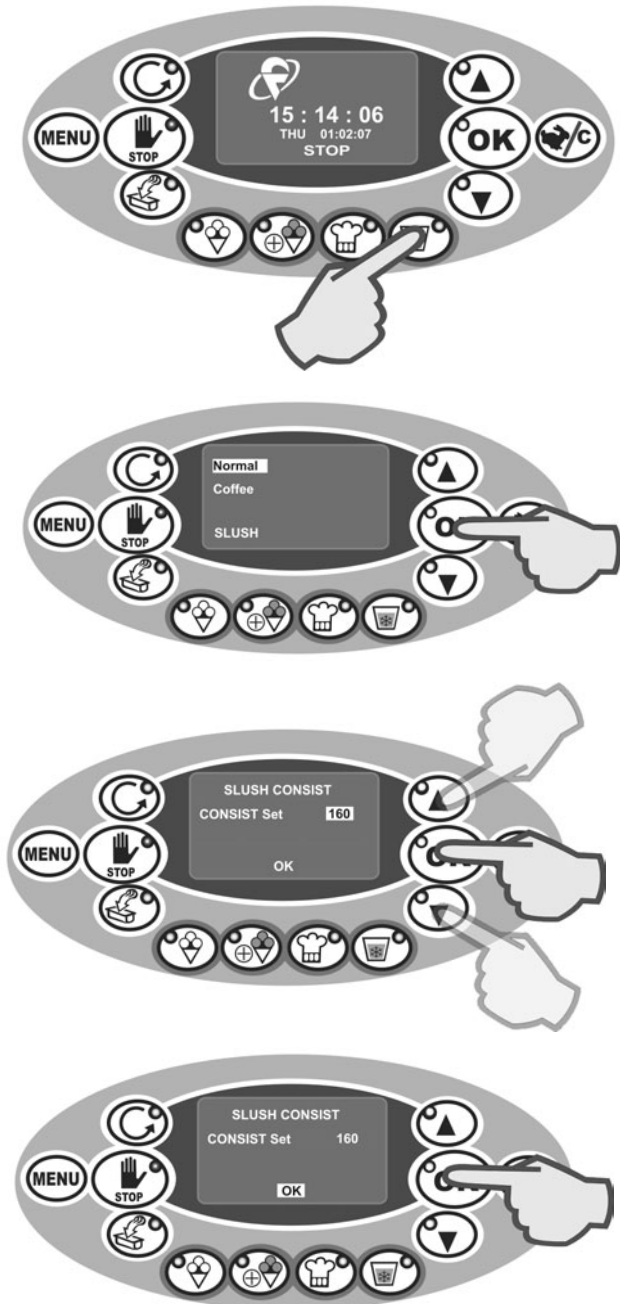
5.5 SLUSH PRODUCTION.

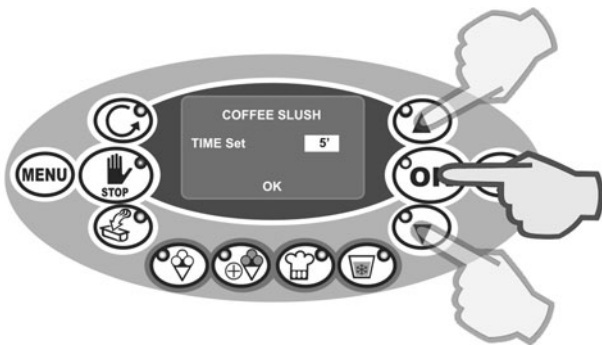
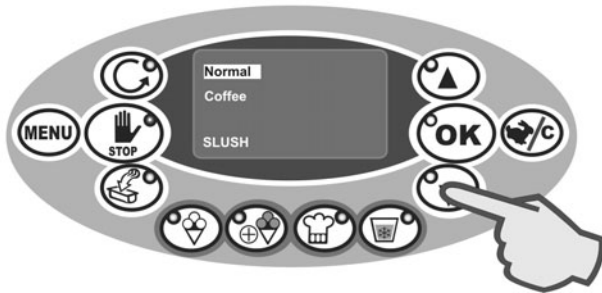
5.5.1 NORMAL SLUSH

- With the machine in STOP mode, press “**SLUSH**” to enter the slush production mode selection screen.
- The item “*Normal*” is defaulted. Press “**OK**” to enter the production parameter set-up menu.
- The first default item is the consistency SET expressed as “**CAUTION** (▲) ” and “**DOWN** (▼) ” and “**OK**” to increase or decrease the value. Higher consistency values correspond

For small quantities of product, it is advisable not to select numbers close to 180.

- Then press “**OK**” to confirm the set-up consistency value.
- On the bottom of the display the message “**OK**” appears to confirm the correct cycle programming. Press “**OK**” again to start the cycle up.
- During the cycle the compressor and the agitator remain in function and the display visualized the consistency value.
- After a few minutes and once the selected consistency value has been reached, the compressor stops, the display visualizes the message “*Extract*” and an intermittent beep warns the operator that it is possible to extract the slush.





5.5.2 COFFEE SLUSH

- With the machine in STOP mode, press “**SLUSH**” to enter the slush production mode selection screen.
- The item “*Normal*” is defaulted. Press “**DOWN (▼)**” to select “*COFFEE*”. Press “**OK**” to enter the production parameter set-up menu.
- The first default item is the time SET expressed in minutes and ranging between 0’ and 10’: press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the value. High working times correspond to higher consistency values and vice versa.



The working time can vary from 2 and 6 minutes according to the mixtures and the quantity introduced.

For small quantities do not select times superior to 2 - 4 minutes.

- Then “**OK**” to confirm the set-up working time.
- On the bottom of the display the message “**OK**” appears to confirm the correct cycle programming. Press “**OK**” again to start the cycle up.
- During the cycle the compressor always remains in function, whereas the agitator remains still for 10 seconds and in motion for 1 second.
- After the programmed time has expired, the compressor stops, the display visualizes the message “*Extract*” and an intermittent beep warns the operator that it is possible to extract the slush.

5.6 “FLAVOURS” MENU



Frigomat batch freezers of the series “TITAN LCD” are programmed with a 24 “flavours” menu and a completely automatic execution.

Each “flavour” has its own batch freezing criterium, composed of the information on the consistency control system and the agitation type.

Thanks to this useful function, the ice-cream maker can decide how each single flavour shall be batch frozen and store the information in the menu, so that to facilitate and speed his/her work and the work of other operators.

The list includes the following flavours:

- CREME BASE
- CREME+ALCOHOL BASE
- WATER BASE
- MILK BASE
- CREME
- CHOCOLATE
- HAZEL-NUT
- TRUFFE
- TIRAMISU
- TRIFLE
- YOGHURT
- PISTACHIO
- LIQUORICE
- CHESTNUT
- MINT
- LEMON
- STRAWBERRY
- FOREST BERRIES
- PEACH
- MELON
- WATER MELON
- BANANA
- COCONUT
- KIWI

- ... and other 30 free positions for your customized working programs!

To retrieve a memorized working program, refer to the procedure described in the following paragraphs.

5.6.1 EXECUTING A "FLAVOUR" PROGRAM.

Fig.1



Press **"MENU"** to enter the main screen (fig. 1).

Fig.2



"Flavours" is defaulted. Press **"OK"** to enter the list of stored working programs (fig.2-3).

Fig.3



Press **"UP (▲)"** and **"DOWN (▼)"** to scroll the list of stored working program (fig.3). There are 24 preset flavours and each screen visualizes maximum eight of them.

Fig.4



Keep **"DOWN (▼)"** pressed for a few seconds to enter the subsequent screen (fig. 4 - 6).

Fig.5



When the last working program of a page is selected, press **"DOWN (▼)"** to enter the subsequent page (fig. 5 - 6).

Fig.6



When the first flavour of a page is selected, press “UP (▲)” to return to the previous page (fig. 5 - 6).

Fig.7



After the desired recipe, for example “CREME BASE” as shown in the figure, has been selected, press “OK” to automatically start the cycle up (fig. 7 - 8).

Fig.8



During the execution of the selected working program, the display visualizes the following information:

- Title of the program under execution
- Instantaneous consistency value (if the working program is based on the consistency amperometric control).
- Batch freezing remaining time (if the working program is based on working time control).
- Graphical bar with representation of the consistency growth if the selected program is based on the consistency amperometric control.

In any working program execution phase, press “STOP” to cancel the cycle in process and stop the machine (fig. 10).

5.6.2 “FLAVOUR CHANGE” MENU

Fig.1



Press “**MENU**” to enter the main screen (fig. 1 - 2).

Fig.2



Press “**DOWN (▼)**” to select “**FLAVOUR CHANGE**” (fig. 2 - 3).

Fig.3



Press “**OK**” to enter the list of stored working programs (fig. 3 - 4).

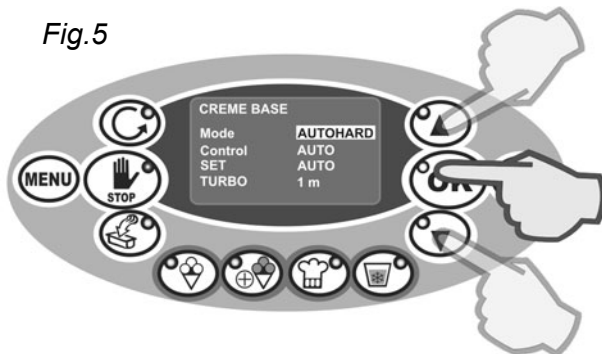
Fig.4



Press “**UP (▲)**” and “**DOWN (▼)**” to scroll the list of stored working programs. Each screen visualized maximum 8 programs.

After selecting the program to be changed, for example “**CREME BASE**”, press “**OK**” to enter the change screen (Fig. 4 - 5).

Fig.5



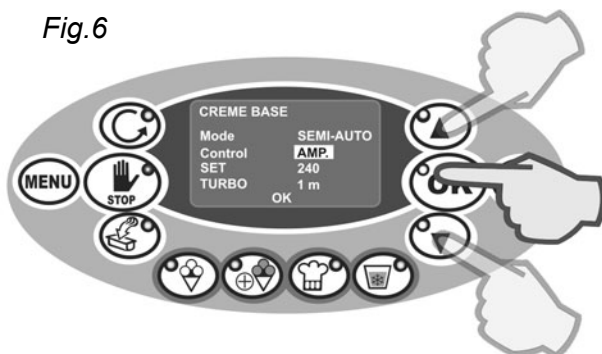
The first defaulted item concerns the selection of the batch freezing mode to be coupled with the programmed flavour; press “UP (▲)” and “DOWN (▼)” to select the batch freezing mode among the four ones available:

- AUTOMATIC
- AUTOMATIC HARD
- SEMI-AUTOMATIC
- SLUSH

Then press “OK” to confirm the selection and pass to the subsequent item (fig. 5).

If AUTOMATIC or AUTOMATIC HARD have been selected, TURBO function programming immediately follows.

Fig.6

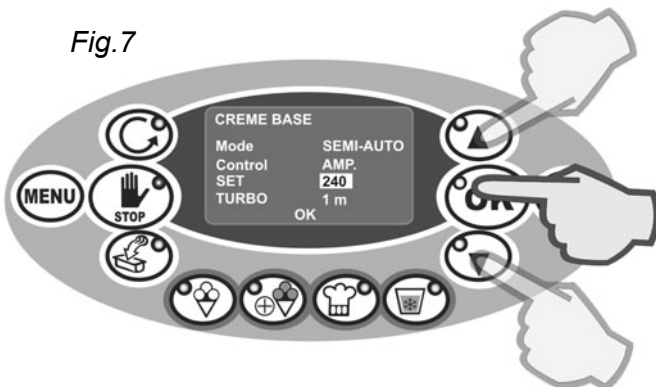


If SEMIAUTOMATIC or SLUSH have been selected, the control mode programming follows; press “UP (▲)” and “DOWN (▼)” to select the desired mode among the following options:

- CONSISTENCY (Amp.)
- TIME

Then press “OK” to confirm the selection and pass to the subsequent item (fig. 6).

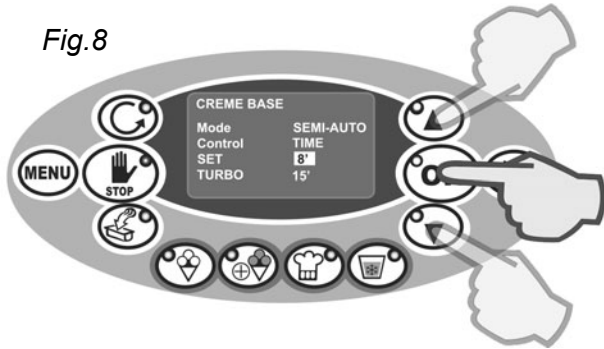
Fig.7



If the CONSISTENCY control mode has been selected, it is possible to set up the consistency SET expressed by a numerical value ranging from 60 and 250: press “UP (▲)” and “DOWN (▼)” to increase or decrease the value. Higher consistency levels correspond to higher numbers, lower consistency levels correspond to lower numbers.

Then press “OK” to confirm the selection and pass to the subsequent item (fig. 7).

Fig.8

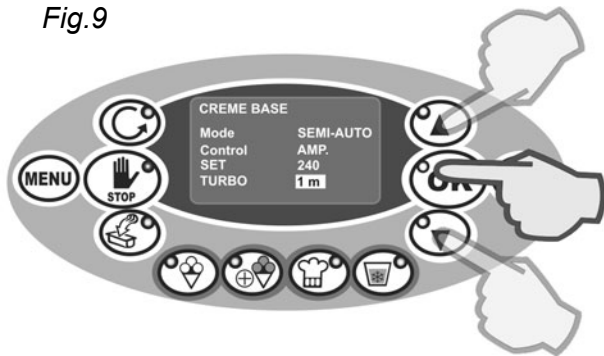


If the TIME control mode has been selected, it is possible to set up the time SET expressed in minutes and ranging from 0' to 30': press "UP (▲)" and "DOWN (▼)" to increase or decrease the value.

Longer batch freezing times correspond to higher consistency values, shorter times correspond to lower consistency values.

Then press "OK" to confirm the selection and pass to the subsequent item (fig. 8).

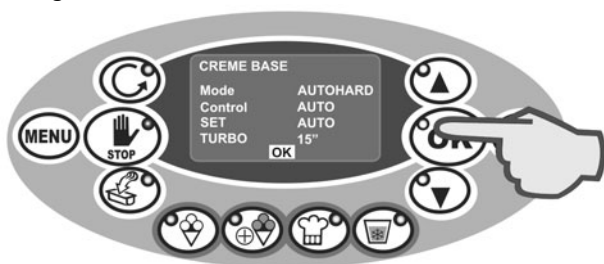
Fig.9



The last programming item is the "TURBO" function, that is to say the period of time at the beginning of the batch freezing cycle during which you want to batch freeze at high speed. Press "UP (▲)" and "DOWN (▼)" to increase or decrease the high-speed agitation time from a minimum of 0 and a maximum of 15". Then press "OK" to confirm the time value set up (fig. 9).

This function is not available in SLUSH mode.

Fig.10



On the bottom of the display the message OK appears to confirm the correct cycle programming. Press "OK" again to enter "SAVE" menu, which allows making changes carried out to the original working program effective (fig. 10).

5.6.3 “FLAVOUR CREATION” MENU

Fig.1



Press “**MENU**” to enter the main screen (fig. 1 - 2).

Fig.2



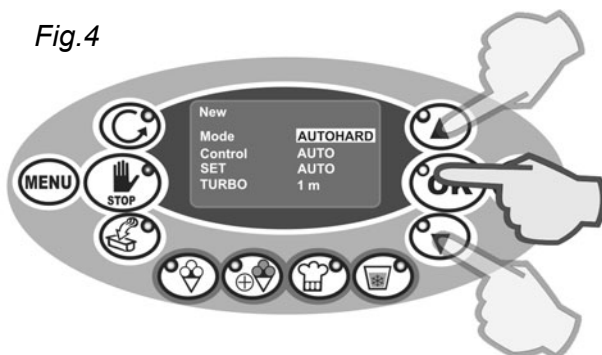
Press “**DOWN (▼)**” to select “**FLAVOUR CREATIONS**” (fig. 2 - 3).

Fig.3



Press “**OK**” to enter the screen for the creation of a new flavour - “**New**”(fig. 2 - 3).

Fig.4



The first defaulted item concerns the selection of the batch freezing mode to be coupled with the programmed flavour; press “**UP (▲)**” and “**DOWN (▼)**” to select the batch freezing mode among the four ones available:

- AUTOMATIC
- AUTOMATIC HARD
- SEMI-AUTOMATIC
- SLUSH

Then press “**OK**” to confirm the selection and pass to the subsequent item (fig. 4).

Keep on programming the remaining items according to the instructions reported in the previous paragraph.

At the end of programming it is possible to enter the “**Save as...**” described in paragraphs 5.7.

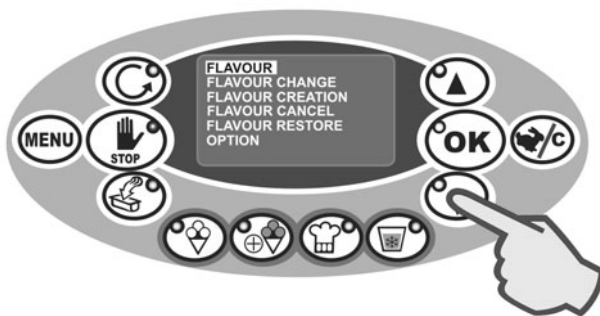
5.6.4 “FLAVOUR CANCEL” MENU

Fig.1



Press “**MENU**” to enter the main screen (fig. 1 - 2).

Fig.2



Press “**DOWN (▼)**” to select “**FLAVOUR CANCEL**” (fig. 2 - 3).

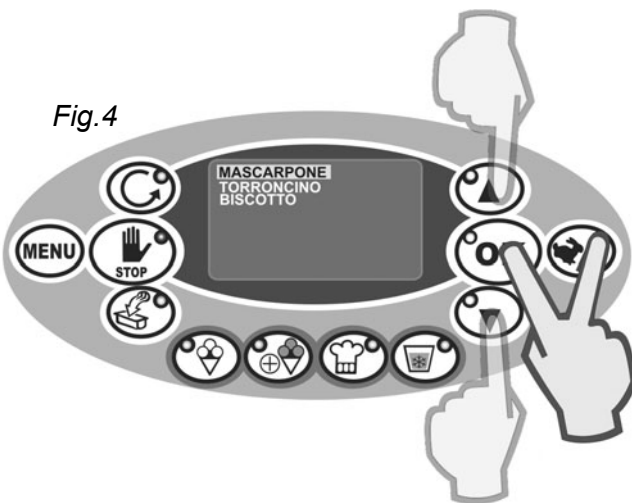
Fig.3



Press “**OK**” to enter the list of memorized customised flavours (fig. 3 - 4).

Attention: the list of flavours, which can be cancelled, reports only the ones created by the user; it is not possible to cancel the flavours preset by Frigomat.

Fig.4



Press “**UP (▲)**” and “**DOWN (▼)**” to scroll the list of customized flavours stored in the machine. Each screen visualizes maximum 8 flavours.

After the desired program has been selected, for example “**MASCARPONE**” as shown in the figure, contemporarily press “**OK**” and “**C**” to confirm the final cancellation. (Fig. 4).

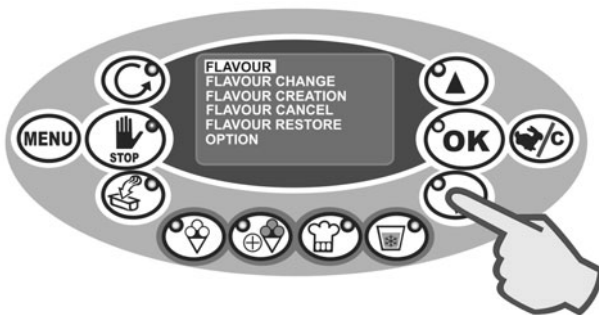
5.6.5 “FLAVOUR RESTORE” MENU

Fig.1



Press “**MENU**” to enter the main screen (fig. 1 - 2).

Fig.2



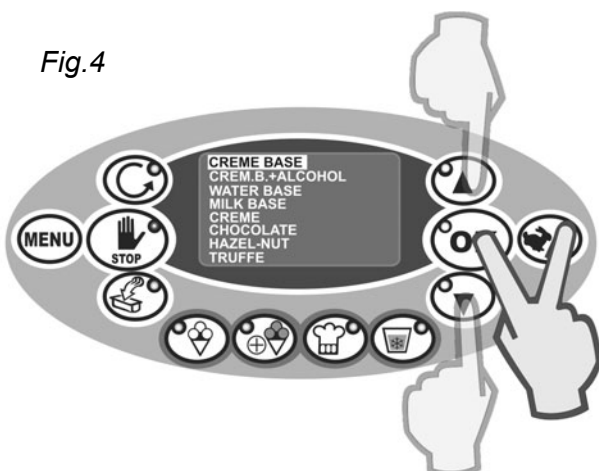
Press “**DOWN (▼)**” to select “**FLAVOUR RESTORE**” (fig. 2 - 3).

Fig.3



Press “**OK**” to enter the list of stored flavours (fig. 3 - 4).

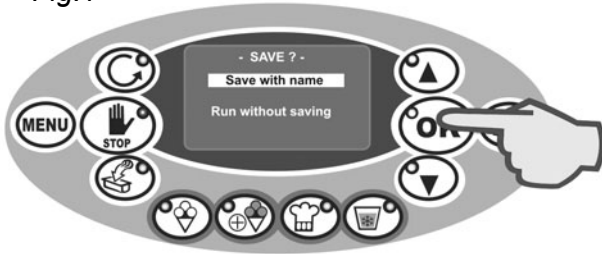
Fig.4



Press “**UP (▲)**” and “**DOWN (▼)**” to scroll the list of stored flavours. Each screen visualized maximum 8 flavours. After the desired program has been selected, for example “**CRÈME BASE**” as shown in the figure, contemporarily press “**OK**” and “**C**” to confirm the definitive restoration of the default working program (fig. 4).

5.7 “SAVE AS...” MENU

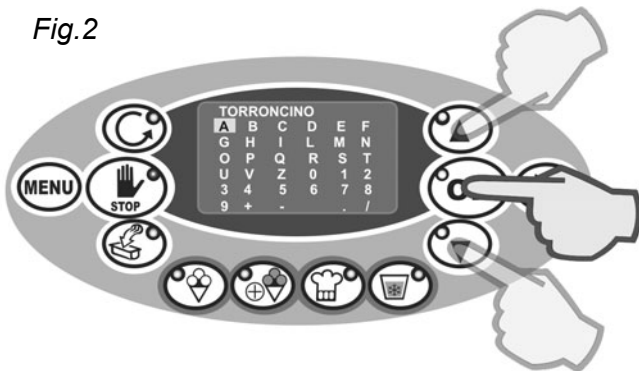
Fig.1



At the end of each new flavour creating procedure, the user is prompted to save the programming or execute it without saving it.

If you want that the new working program is stored and therefore added to the list of stored flavours, select “Save with name” and press “OK” (Fig. 1).

Fig.2



To save a flavour you must name it. The display shows the alphabet letters, the numbers from 0 to 9, some symbols and the blank: press “UP (▲)” and “DOWN (▼)” to select the first letter, number, symbol or blank and then press “OK” to confirm the selection. Repeat the same procedure for each subsequent letter, number, symbol or blank until the flavour name is complete (Fig. 2).

Attention: the flavour names can contain at most 13 characters, blanks included.

Fig.3



If the recipe name is composed of less than 13 characters, blanks included, after typing in the last character, keep “OK” pressed for a few seconds. When at the bottom of the screen the message “OK” appears, press “OK” again to confirm the name (Fig. 3).

After the “save as...” procedure has been concluded, the new flavour is added to the list of available flavours present in the memory and retrievable directly from “Flavours” menu (see chapter 5.6.1). In case the memory is full the message “memory exhausted” is visualised.

5.8 “CLOCK” MENU

Fig.1



Press “**MENU**” to enter the main screen (fig. 1 - 2).

Fig.2



Press “**DOWN (▼)**” to select “**OPTIONS**”.

Press “**OK**” to enter the subsequent menu screen (fig. 2 - 3).

Fig.3



The first default item, is “**CLOCK CHANGE**”.

Press “**OK**” to enter the options for time and date adjustment (fig. 3).

Fig.4

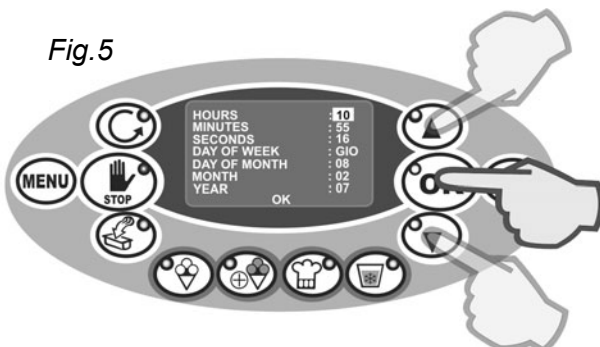


The first default item is the present time: press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the value (Fig. 4).

Then press “**OK**” to confirm the setup value and pass to the next item.

Repeat the same procedure for all items available.

Fig.5



5.9 “EVENT ARCHIVE” MENU

Fig.1



Press “**MENU**” to enter the main screen (fig. 1 - 2).

Fig.2



Press “**DOWN (▼)**” to select “**OPTIONS**”.
Press “**OK**” to enter the next menu screen (fig. 2 - 3).

Fig.3



Press “**OK**” to enter the next screen (fig. 3 - 4).

Fig.4



Press “**DOWN (▼)**” to select “**EVENT ARCHIVE**” then press “**OK**” (Fig. 4).

Fig.5



The display visualizes the list of events and alarms necessary for the technician for troubleshooting (Fig. 5).

6. MAINTENANCE

6.1 ROUTINE MAINTENANCE (ADDRESSED TO THE USER)



During production, cleaning and maintenance operations, never touch the machine with hands or tools without making sure that the machine has been disconnected from mains. In case of troubles, make sure that they are not caused by a lack of servicing. On the contrary, ask for the intervention of a FRIGOMAT customer service. In case it is necessary to replace a piece, always ask a distributor or an authorized retailer for original spare parts.

It is advisable to make the machine be checked by a Customer Service every 6/8 months.

6.1.1 CLEANING AND SANITIZATION

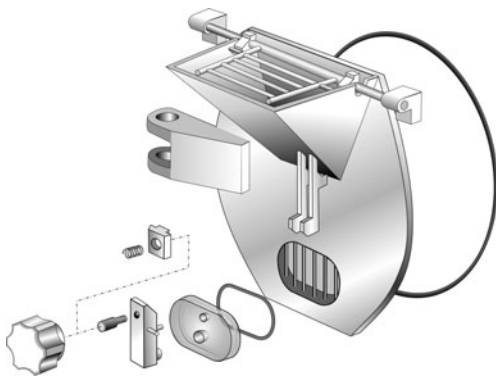
Bacteria and moulds easily proliferate due to presence of fats in cream, that is why it is necessary to carefully wash and clean all parts in contact with the product, such as the cylinder, the agitator and the door.



Rustless materials and/or made of plastic for food industry used for our machines, in conformity with the most severe international standards, and their particular shapes, make washing operations easier, however they cannot prevent mould and bacteria proliferation caused by insufficient or wrong cleaning. FRIGOMAT recommends cleaning the tank and the parts in contact with the product after every use and in any case in compliance with the sanitary standards in force in the country of installation. To thoroughly clean your batch freezer, proceed as follows:

1. Pour a quantity of cold or warm water, equal to the maximum charge allowed, into the cylinder.
2. Press the AGITATION pushbutton and let the machine run for 1-2 minutes. Press STOP and let the washing water off. Repeat the operation until the water coming out of the cylinder is clean.
3. Pour a quantity of detergent solution/sanitiser, equal to maximum charge allowed, into the cylinder.
4. Press CLEANING pushbutton and let the machine run for 1-2 minute. Press STOP and let all the solution off.
5. To disassemble the door, pull up the lever, make the door rotate to the left and, whilst holding it with one hand, remove the hinged knob with the other hand. The door is now ready for being disassembled.





6. Dismantle the door into pieces:
 - Unscrew the handle adjusting knob
 - Remove the guide and the spring
 - Remove the delivery door
 - Remove the O-rings
7. Pull the agitator and the stuffing box out: remove the scraping pads and wash them thoroughly. Use the cleaning rod to clean the pads seats on the agitator.
8. Wash all components with a detergent/sanitiser solution. Let them dry in the open air.
9. Accurately sanitise the freezing cylinder.
10. Remove the drip drawer from the front panel and thoroughly wash it. If the drip drawer contains some mixture, the agitator stuffing box is leaking and must be replaced.
11. Lubricate the O-rings and the stuffing box with FRIGOMAT lubricant for food industry only, which is provided as standard. Once a week, it is advisable to rotate the agitator stuffing box so that the rubber elasticity can be recovered.



- For the maximum performance of the batch freezer, never invert the position of the scraping pads.
- To preserve plastic components and gaskets, never use solvents and/or diluents during washing.
- Sanitizing chemicals shall be used according to the laws in force and with the utmost caution.
- After any sanitizing operation, it is indispensable not to touch the sterilized parts either with hands or with towels, sponges or other.
- Avoid making the agitator run empty, as the machine can be damaged.
- Avoid making the agitator run with water for a long time, as the scraping pads can be worn out.

6.1.2 MAINTENANCE OF AGITATOR AND GASKETS

The agitator blades are equipped with scraping pads made of atoxic plastic materials suitable for food industry. These components are subject to wear according to the characteristics of the employed mixture: with high sugar content and low fat percentage a remarkable wear of pads can be detected.

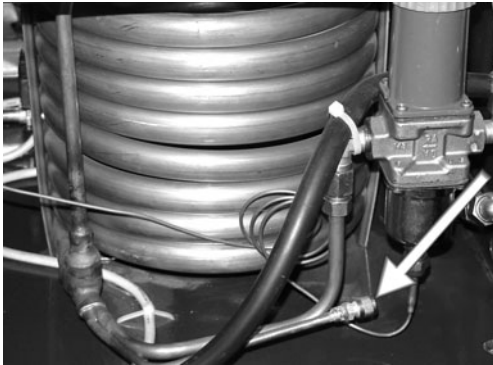
When the pads are too worn out, the agitator is no more able to perfectly scrap the freezing cylinder walls resulting in an extension of batch freezing times. To restore the machine performance, it is sufficient to replace the scraping pads (at least 1 or 2 times a season).

Each time the machine is cleaned, it is necessary to also all rubber gaskets with FRIGOMAT food Vaseline lubricant (provided as standard) or similar and also carry out the periodical turnover with the ones supplied with the machine.

6.2 EXTRAORDINARY MAINTENANCE (ADDRESSED TO QUALIFIED PERSONNEL)



Only qualified and authorized personnel must carry out these operations. FRIGOMAT S.r.l. cannot be held responsible for damages to things or people caused by non-compliance with the above-mentioned regulations.



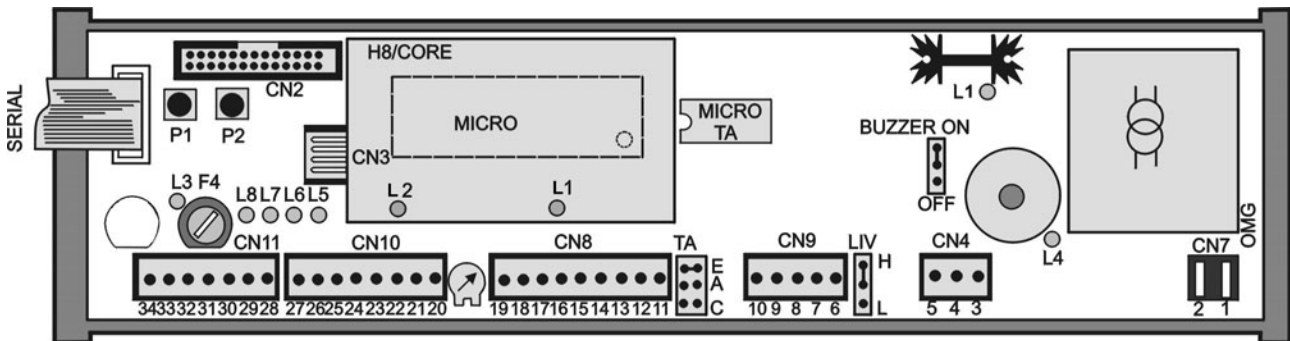
6.2.1 REFRIGERATING UNIT

In case of machine with water-cooled condenser it is necessary to run off the circuit if temperature is expected to fall beneath 0° C. Close the general cock and disconnect water inlet pipes; remove the right side panel to reach the service valve and remove it. Let the water in the circuit completely run off.

6.2.2 ELECTRIC SYSTEM

The functional wiring diagram and the electric box layout, different for each model are located on the external part of the box cover.

OMG electronic card



P1	P2	L	CN	F	LIV	TA
Pulsante Programmazione	Pulsante Inizializzazione abbinato a P1	Led	Connettori	Fusibile	Controllo Livello	Contatto Trasformatore
Pulsante Inizializzazione abbinato a P2						

6.2.3 ELECTRONIC PROGRAMMING AND LANGUAGE SELECTION



Only authorized technical personnel can program the parameters of the “OMEGA” electronic board. Changing these parameters can affect the performances of the machine.

Fig.1



Fig.2

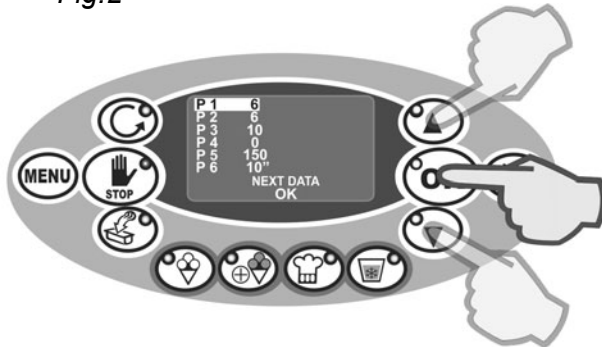


Fig.3



Fig.4



Follow these instructions to program the electronic board:

1. Make sure that the door is closed and the protection grids lowered.
2. With the machine in **STOP** mode, keep **“STOP”** and **“OK”** pushbutton contemporarily pressed for a few seconds, until the message **“PASSWORD”** is visualized on the display. Insert the password (to obtain the password please get in contact with FRIGOMAT customer assistance service). To insert the numbers press **“UP (▲)”** and **“DOWN (▼)”**, then press **“OK”** to confirm the password.
3. The first programming step **P1** is selected automatically and flashes. (Fig.2).
4. If you don't want to change the flashing value, press **“OK”** to directly access the next step (Fig.2). Press **“CANCEL”** to return to the previous step.
5. On the contrary, if you want to change the flashing step, press **“UP (▲)”** to increase or **“DOWN (▼)”** to decrease the value. Then press **“OK”** to confirm the figure and access the next step.
6. To access the next screen, select **“Next data”** at the bottom of the page and press **“OK”** to confirm (Fig.3).
7. To exit the programming function and save the modifications select **“OK”** at the bottom of the page and confirm by pressing **“OK”**.

“OMEGA” (*) BOARD PROGRAMMING TABLE									
	Description	Min	Max	T. 35	T. 45	T. 60	T. 75	T.100	Step
P1	Amperage selection TA in batch freezing function	2A	32A	6	8	8	10	12	2A
P2	Amperage selection TA in slush function	2A	32A	6	10	10	12	12	2A
P3	Consistency hysteresis (%SET)	1	50	10	10	10	10	10	% consistency SET
P4	Frequency selection (Hz)	0	3	0	0	0	0	0	0=400/50, 1=220/60, 2=220/50, 3=No neutral
P5	Sampling 1 (AUTOMATIC cycle minimum threshold)	50	200	150	150	150	150	150	1 number of consistency
P6	Sampling 1 time AUTO cycle	0”	22”	10”	10”	10”	10”	10”	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-20-22 sec.
P7	Sampling 2 (AUTOMATIC cycle minimum threshold)	50	200	190	190	190	190	190	1 number of consistency
P8	Sampling 2 time AUTO cycle	0”	22”	4”	4”	4”	4”	4”	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-20-22 sec.
P9	Sampling 3 (AUTO HARD cycle minimum threshold)	50	200	180	180	180	180	180	1 number of consistency
P10	Sampling 3 time AUTO HARD cycle	0”	22”	14”	14”	14”	14”	14”	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-20-22 sec.
P11	Sampling 4 (AUTO HARD cycle minimum threshold)	50	200	200	200	200	200	200	1 number of consistency
P12	Sampling 4 time AUTO HARD cycle	0”	22”	10”	10”	10”	10”	10”	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-20-22 sec.
P13	Compressing time ON in delivery	0	2	2	2	2	2	2	0 = 5 sec. 1 = 10 sec. 2 = 15 sec. 3 = 20 sec.
P14	Agitator time ON in coffee slush function	1”	10”	1”	1”	1”	1”	1”	1 sec.
P15	Anti-ice-cream function at center (high speed)	0	1	1	1	1	1	1	0= off 1=on
P16	Anti-ice-cream function at center (number decrease)	10	150	50	50	50	50	50	1 number of consistency
P17	Anti-ice-cream function at center (% of increase)	5	50	10	10	10	10	10	% consistency numbers
P18	Batch freezing Time-out alarm	0	1	0	0	0	0	0	0 = 35 min. 1= 20 min.
P19	Display filter	0	1	1	1	1	1	1	0= off 1= on
P20	Language								I-E-F-D-S
P21	Frigomat logo	0	1	1	1	1	1	1	0= off 1= on

(*)The parameters can change according to the software versions or customizing processes. It is always possible to refer to the test cards supplied with the machine.

6.2.4 LCD CONTRAST ADJUSTMENT

1. Disconnect the machine
2. Press both “**STOP**” and “**OK**” at the same time and power the machine. The display shows the term “*Contrast*” and the software installed on the LCD and OMG board.
3. Release keys.
4. Press “**UP (▲)**” and “**DOWN (▼)**” to increase or decrease the contrast of the LCD display respectively.
5. Press “**OK**” to confirm and exit the contrast adjustment function.

6.2.5 CONSISTENCY CALIBRATION ON OMEGA CARD

FRIGOMAT electronic batch freezers series TITAN LCD are equipped with an electronic card with a sophisticated microprocessor that enables to control the ice-cream consistency through the acknowledgement of different parameters, such as the agitator motor power consumption. During the batch freezing cycle, the machine display visualises numeric values between 0 and 250, which are directly proportional to the ice-cream hardness. Each machine is tested and calibrated by FRIGOMAT with standard mixtures and with an agitator motor power consumption referring to a hardness value of 240. Such value is reported on the test sheet supplied with the machine (see AGITATOR AMPERE @SET240); this calibration can normally satisfy a wide range of requests.

It is anyway possible to adjust the batch freezer consistency value for any particular requirement: this operation shall be carried out by authorised skilled personnel only who shall use a clamp meter with suitable accuracy and carrying capacity.



To set the consistency, it is necessary to open the panels and act on the electronic card inside the electric box while the machine is under voltage. Each operation shall be carried out very carefully and in conformity with the safety regulations in force.

Follow the instructions below to perform the consistency calibration:

1. Disconnect the machine and remove the right side panel; then remove the cover of the electric box.
2. Find the current transformer power wire (identified with L1 – see electric diagram) and connect it to the clamp meter. This way the agitator motor power consumption can be measured.
3. Fill the cylinder with the maximum amount of ice-cream mixture allowed for each model.
4. Power up the machine.
5. Press the SEMIAUTOMATIC pushbutton, programme the set to SET 240 and press OK to confirm. The machine starts up.
6. While the machine is working, contemporary press “**UP (▲)**” and “**DOWN (▼)**” for at least 10” to enter the “*Regulation*” mode. “UP (▲)”, “DOWN (▼)” and “OK”

pushbuttons light up and the display visualises the consistency numeric value, which increases while the machine is working.

7. Press “**UP (▲)**” and “**DOWN (▼)**” to respectively increase and decrease this number and adjust the consistency.
8. Once the desired consistency has been reached, the expected value can be read on the clamp meter. Press “**UP (▲)**” and “**DOWN (▼)**” until the number 240 appears on the display; the machine will then signal that the ice-cream is ready.
9. Press **OK** to store the setting. The machine will release and acoustic signal to confirm the value.

CONSISTENCY VALUE @ SET 240 (400V)					
<i>Consistency</i>	<i>TITAN 35</i>	<i>TITAN 45</i>	<i>TITAN 60</i>	<i>TITAN 75</i>	<i>TITAN 100</i>
Ampere	6,2	9,2	9,6	10,6	11,5
Watt	2500	3600	3800	4800	4600

6.2.6 FORCED INITIALIZATION (RESET)

In some cases it may be necessary to reset the store data to restore the correct functioning of the OMG electronic card and the LCD pushbutton panel.

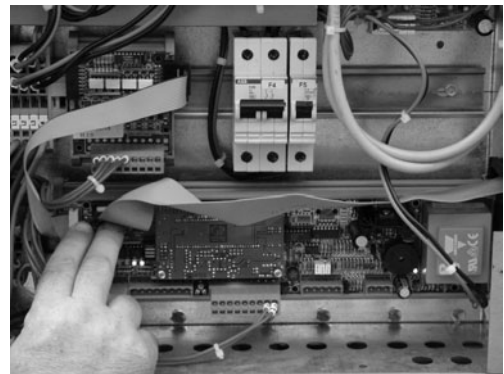


To perform this operation, it is necessary to remove the panels and act on the electronic card inside the electric box while the machine is under voltage. Each operation shall be carried out very carefully and in conformity with the safety regulations in force.

- Follow the instructions below to perform the resetting:

1. Disconnect the machine and remove the back panel. Then remove the cover of the electric box.
2. SIMULTANEOUSLY press P1 and P2 on the OMG electronic board and power the machine.
3. Release the buttons P1 and P2 after at least 5 seconds.

The OMG board reset operation is necessary after the installation of new software in the OMEGA electronic board or when you think there are software problems.



- Follow these instructions to reset the LCD board:

1. Disconnect the machine
2. Simultaneously press “**STOP**” and “**OK**” and power the machine. The display shows the term “*Contrast*” and the software installed on the LCD and OMG board.
3. Release keys.
4. Press and keep “**CANCEL**” pressed until the display shows the message “*reset memory*”.
5. Press “**OK**” to exit the reset function.

The reset operation of the LCD pushbutton board is necessary after the installation of new software in the LCD electronic board or when you think there are software problems.

- To reset the “event archive / cycle archive” memory

1. Disconnect the machine
2. Press “**STOP**” and “**OK**” at the same time and power the machine. The display shows “*Contrast*” and the software version installed on the LCD and OMG board.
3. Release keys.
4. Press and release the “**MENU**” key, the display shows the message “*reset flash memory / end reset flash memory*”. The operation will delete the archive of the events and of the cycles.

Press “**OK**” to exit the reset function.

7 TROUBLESHOOTING INSTRUCTIONS

7.1 ALARM MANAGEMENT

MESSAGE	DESCRIPTION	REMEDIES
ALARM! EMERGENCY DOOR OPEN	The door is open or the protection grid on the hopper is not completely lowered. An intermittent beep is released.	Make sure that the door is closed and the protection grid on the hopper is lowered.
ALARM! MOTOR THERMAL OVERLOAD	The thermal protection of a motor has tripped. The buzzer releases a beep every 10".	After a check on the machine, press STOP to restore the correct operation.
ALARM! BATCH FREEZING TIME OUT	If the machine cannot bring the product to the preset consistency within the time programmed in step P18 the alarm message is visualized on the display.	Check that the quantities of mixture introduced are correct and perfectly balanced
ALARM! EEPROM DOES NOT WORK	At each machine start-up, the microprocessor checks the data in the EEPROM memory. If they are not correct, the display visualizes the alarm message. The buzzer releases a beep every 10".	Call technician for RESET procedure
ALARM! OUTPUT MODULE MISSING OR BROKEN	If there are connection problems with the Output module, the display shows the alarm message. The buzzer releases a beep every 10".	Call for technician
ALARM! CHECK CONNECTION TO OMEGA MODULE	If there are connection problems with the OMEGA module, the display shows the alarm message. The buzzer releases a beep every 10".	Call for technician
ALARM! TA MICRO MISSING OR NOT FUNCTIONING	If during normal functioning an anomaly of the microprocessor controlling the consistency calibration occurs, the alarm is visualized on the display followed by the release of an intermittent beep.	Call for technician
ALARM! CURRENT TRANSFORMER NOT FUNCTIONING	If during normal functioning an anomaly of the current transformer occurs TA will appear on the display followed by the release of an intermittent beep.	Call for technician

7.2 TROUBLESHOOTING

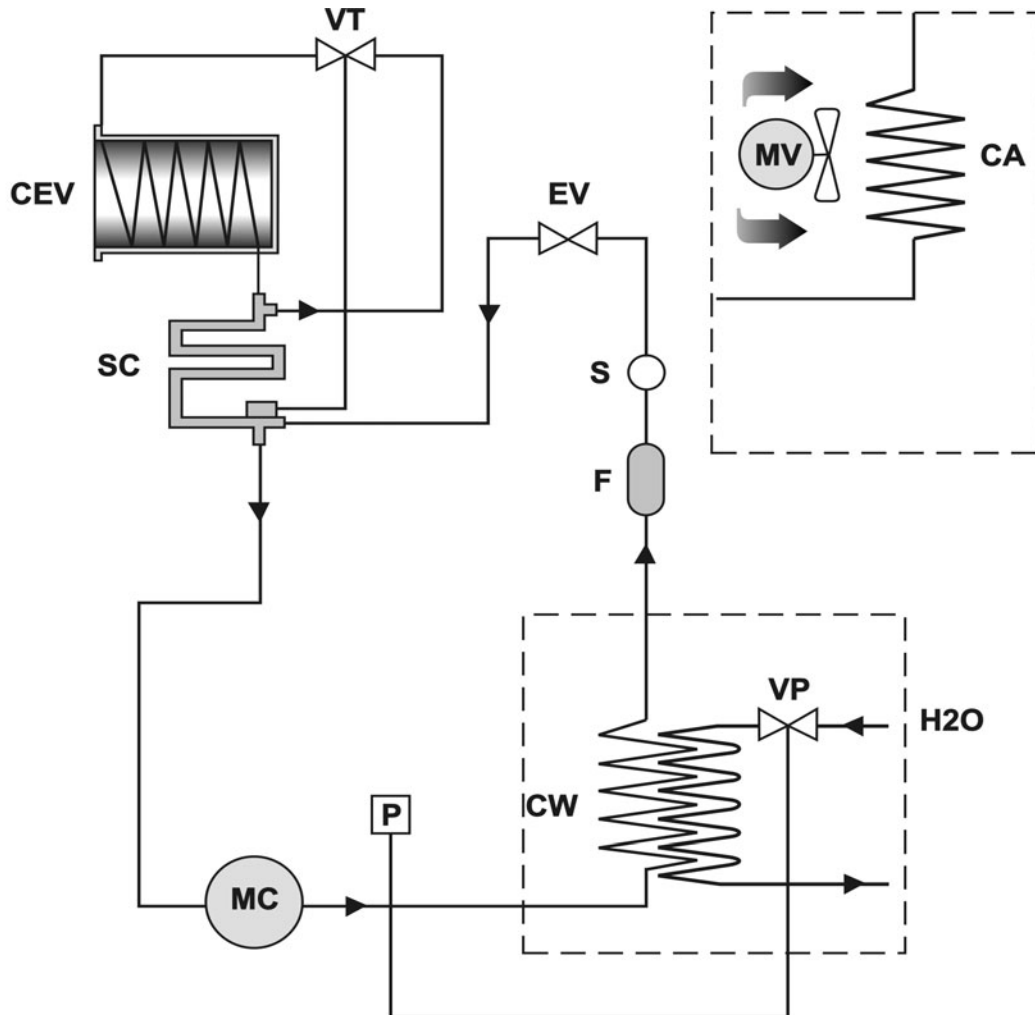
TROUBLE	POSSIBLE CAUSES	REMEDIES
The machine does not start (STOP button ON without active alarms)	Electric trouble	Send for a technician
	Incorrect power supply	Check phases
The machine does not start (STOP pushbutton off)	Master switch open	Turn the switch off
	Burnt fuses	Check and replace
Since the first phases of the batch freezing cycle, the compressor works intermittently	Machine with water condensing system: lack of condensing water	Check for the presence of water in the water system to which the machine is connected. Check the cocks.
	Machine with air condensing system: dirty air condenser or broken down fan.	Clean the condenser with a brush and check that the fan motor correctly works.
The machine interrupts the batch freezing cycle after 35' and switches to STOP mode	Safety timer alarm: the maximum time set for batch freezing has been exceeded.	Check condensing.
		Make sure that the room temperature is not too high.
		Make sure that you have used a correct amount of mixture and that it is properly balanced.
The machine works regularly but the ice-cream is too hard	Unbalanced mixture or wrong amount of mixture.	Make sure that you have used a correct amount of mixture and that it is properly balanced.
	In semi-automatic cycle: the programmed consistency value is too high.	Programme a lower consistency value.
The machine works regularly but the ice-cream is too soft.	Worn out agitator scraping pads.	Check and replace if required
	Trouble in freezing system	Send for a technician
	Unbalanced mixture or wrong amount of mixture.	Make sure that you have used a correct amount of mixture and that it is properly balanced.
	Insufficient condensation.	Check condensation and make sure that the room temperature is not too high.
	In semi-automatic cycle: the programmed consistency value is too low.	Programme a higher consistency value.
The scraping pads close to the bottom of the cylinder are too worn out compared to the others.	Presence of a thick layer of ice on the bottom of the cylinder.	Make sure that you have used a correct amount of mixture and that it is properly balanced.
During batch freezing the machine is noisy and the agitator stops.	The belts slip	Check the belt tension and in case of necessity replace all the belts.
During the delivery of ice-cream the machine is noisy.	The product is too hard.	Make sure that you have pressed the "EXTRACTION" pushbutton.
Traces of liquid ice-cream in the drip drawer	Worn-out agitator stuffing box	Check and/or replace.

8 APPENDICES

8.1 Machine Specification

MODELLO MODEL MODELE MODELL MODELO	TITAN LCD 35	TITAN LCD 45	TITAN LCD 60	TITAN LCD 75	TITAN LCD 100
Dimensioni Size Dimension äussere Abmessung Dimensiòn	55x67x143 h (cm)		60x67x143 h (cm)		60x77x143 h (cm)
Peso netto Net weight Poids net Nettogewicht Peso neto	250 kg	290 kg	310 kg	340 kg	370 kg
Alimentazione Voltage Alimentation Spannung Alimentacion	400/50/3 230/50/3 220/60/3				
Potenza Power Puissance Leistung Potenza instalada	4,0 kw	5,0 kw	5,8 kw	7,2 kw	8,2 kw
Condensaz. Cooling Refroidiss. Kühlung Enfriamento	A/W	W			
Gas	R404A 0,950 kg (W) 1,400 kg (A)	R404A 1,100 kg	R404A 1,300 kg	R404A 1,350 kg	R404A 1,400 kg
Capacità Capacity Capacité Inhalt Capacitat	2-6 kg	2,5-8 kg	3-10 kg	3,3-13 kg	4-16 kg
Produzione Production Production Produktion Produciòn	35 kg/h	45 kg/h	60 kg/h	75 kg/h	100 kg/h

8.2 Refrigerant circuit diagram



VP	CW	EV	F
Valvola pressostatica Water valve Soupape pressostatique Druckventil Valvula presostatica	Condensatore ad acqua Water condensor Condensation à eau Wasserkondensierung Condensaciòn a agua	Elettrovalvola gas Gas electro valve Vanne électrique gas Gas Elektroventil Valvula electrica gas	Filtro Filter Filtre Filter Filtro
S	VT	CEV	SC
Spia liquido Led fluid Led fluid Led Kuhlmittel Mirilla fluido	Valvola termostatica Thermostatic valve Vanne thermostatique Thermostatisches ventil Valvula termostatica	Cilindro evaporatore Evaporator cylinder Evaporateur cylindre Zylinder-Verdampfer Evaporador cilindro	Scambiatore Heat exchanger Echangeur de chaleur Wärmeaustauscher Cambiador de calor
CA	MV	MC	P
Condensatore ad aria Air condensor Condensation à air Luftkondensierung Condensaciòn a aire	Motoventilatore Fan motor Moteur ventilateur Ventilatormotor Motor ventilador	Compressore Compressor Compresseur Kompressor Compresor	Pressostato Pressostat Pressostat Pressostat Presostato

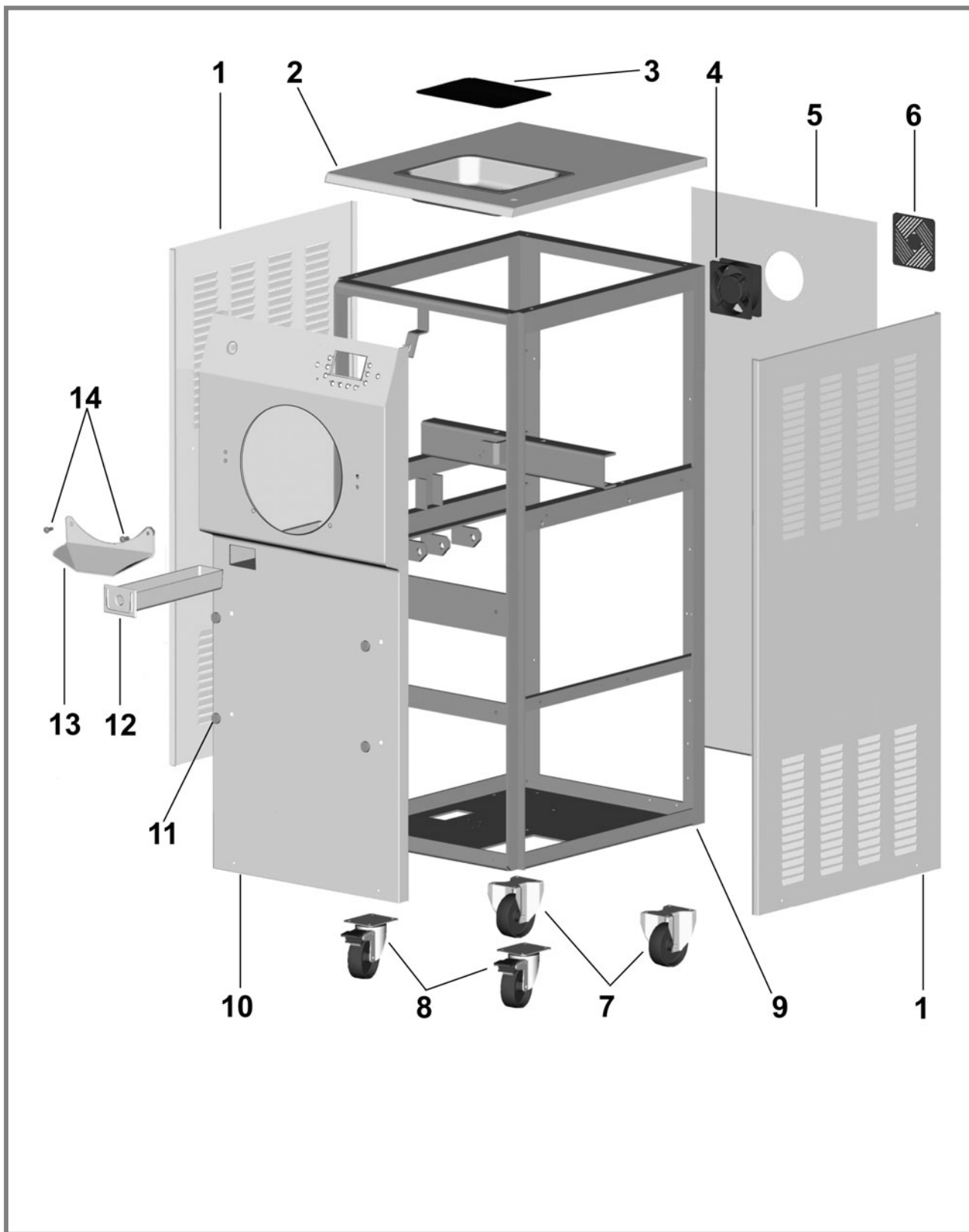
8.3 ELECTRIC SYSTEM

The functional wiring diagram and the electric box lay-out, different for each model are located on the box cover.

8.4 SPARE PARTS

For spare parts ordering, always mention the corresponding code number and the name reported on each table caption. It is also recommended to always mention the machine model and the serial number as well as the technical data (voltage, frequency and phases), to make the identification of the component easier. To order spare parts for the compressor, always mention the model specified on the motor nameplate. In case it is necessary to replace a component, always ask a distributor or an authorized retailer for ORIGINAL spare parts. FRIGOMAT declines any liability for damages to people and/or things due to employment of non-original spare parts.

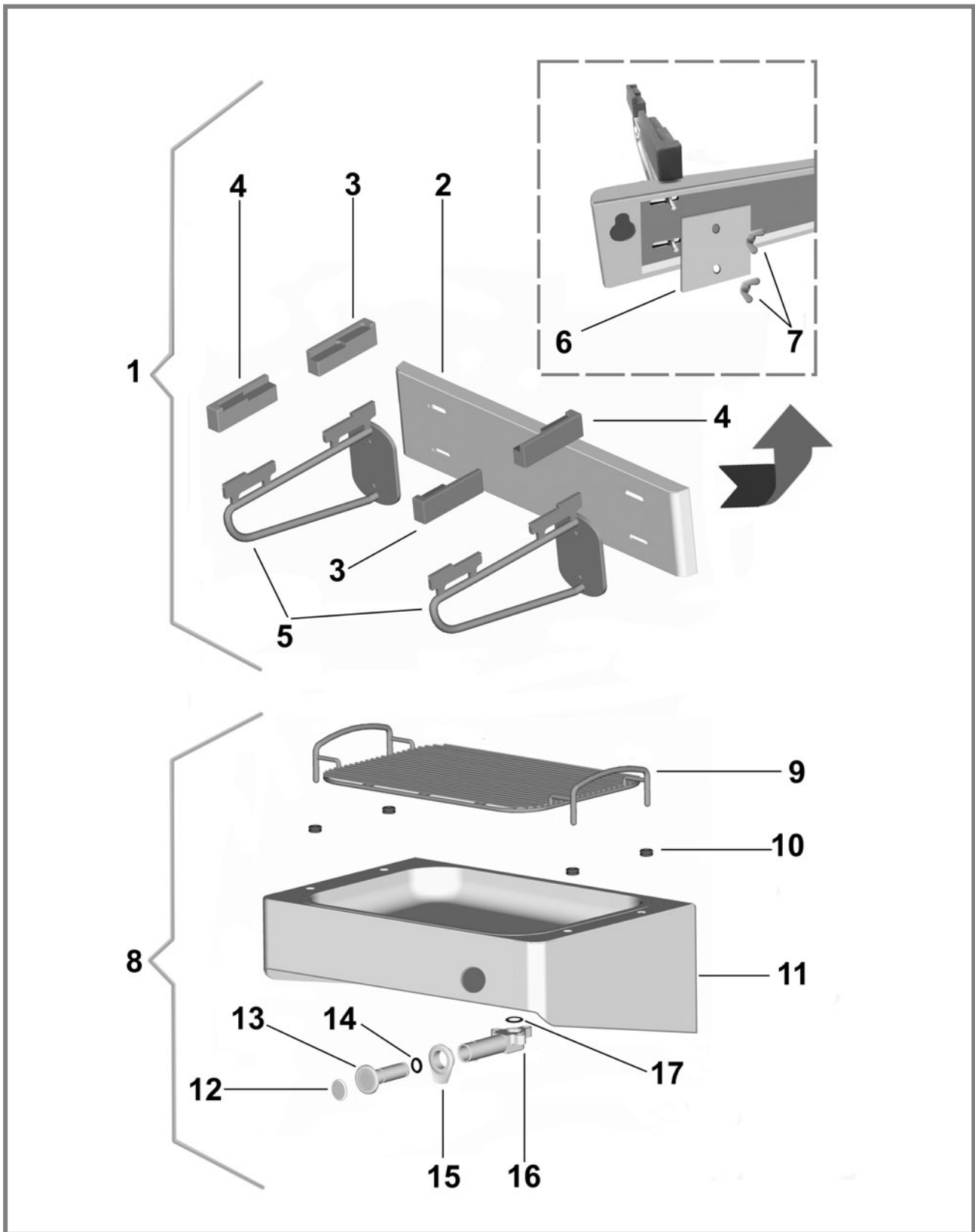
TITAN Icd 35-45-60-75-100 s01 Tav.1/8



TITAN Icd 35-45-60-75-100 s01 Tav.1/8

P.	COD.	Mod. TITAN Icd	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	A02.38761	35-45-60-75	Pannello laterale	Side panel	Panneau lat.	Seitenblech	Panel lateral
1	A02.38778	100	Pannello laterale	Side panel	Panneau lat.	Seitenblech	Panel lateral
2	Z65.38915	35-45	Cappello+vaschetta	Cover+pan	Couvercle+	Deckel+Abstellfach	Tapa+cuba
2	Z65.38916	60-75	Cappello+vaschetta	Cover+pan	Couvercle+cuve	Deckel+Abstellfach	Tapa+cuba
2	Z65.38917	100	Cappello+vaschetta	Cover+pan	Couvercle+cuve	Deckel+Abstellfach	Tapa+cuba
3	P04.38780	35-45-60-75-100	Tappetino	Rubber matting	Tapis de caoutchouc	Gummimatte	tapecito
4	B01.340	35-45-60-75-100	Ventilatore	Fan	Ventilateur	Ventilator	Ventilador
5	A02.38740	35-45	Pannello posteriore	Back panel	Panneau postérieur	Hinteres Blech	Panel posterior
5	A02.38762	60-75-100	Pannello posteriore	Back panel	Panneau postérieur	Hinteres Blech	Panel posterior
6	B03.38574	35-45-60-75-100	Griglia ventilatore	grid	grille	das Gitter	parilla
7	F02.014	35-45-60-75-100	Ruota fissa	Fixed wheel	Roue fixe	Festes Laufrad	Rueda fija
8	F02.013	35-45-60-75-100	Ruota Girevole	Revolving wheel	Roue pivotante	Schwenkbares Laufrad	Rueda giratoria
9	A01.38729	35-45	Telaio	Frame	Châssis	Gestell	Armazón
9	A01.38730	60-75	Telaio	Frame	Châssis	Gestell	Armazón
9	A01.38731	100	Telaio	Frame	Châssis	Gestell	Armazón
10	A02.38686	35-45	Pannello anteriore	Front panel	Panneau antérieur	Frontblech	Panel anterior
10	A02.38687	60-75-100	Pannello anteriore	Front panel	Panneau antérieur	Frontblech	Panel anterior
11	B09.060	35-45-60-75-100	Borchia balconcino	Stud for rest	Ecrou pour support	Buegelbolzen	Remache
12	P19.37193	35-45-60	Cassetto Sgocciolatoio	Drip tray	Recueille-gouttes	Tropfblech	Recogedor de gotas
12	P19.37192	75-100	Cassetto Sgocciolatoio	Drip tray	Recueille-gouttes	Tropfblech	Recogedor de gotas
13	A19.38738	35-45-60-75-100	Bavagliola	Funnel	Etonnoir	Trichter	Embuto
14	B09.197	35-45-60-75-100	Vite bavagliola	Tunnel screw	Vis etonnoir	Trichterschraube	Tornillo embuto

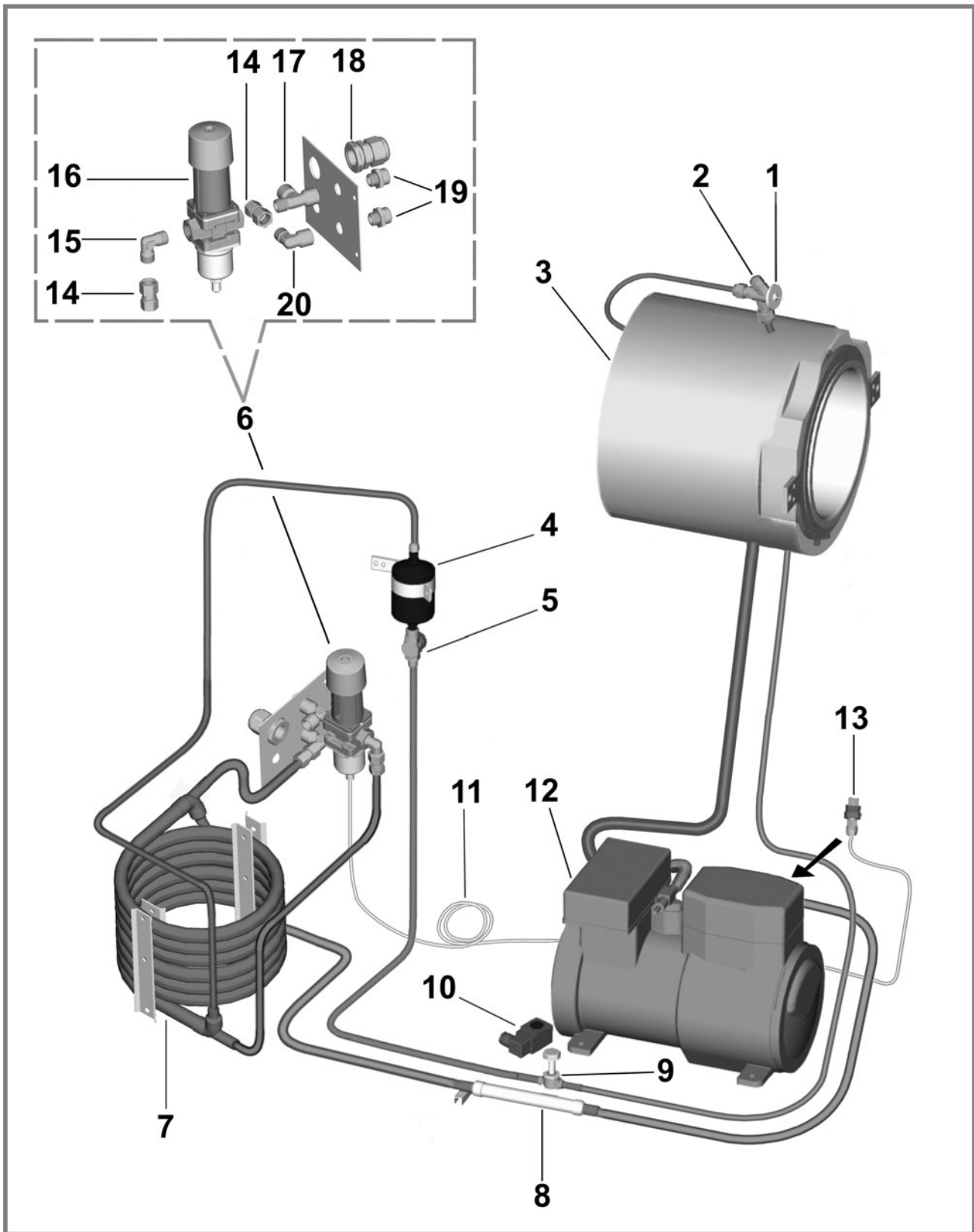
TITAN Icd 35-45-60-75-100 s01 Tav.2/8



TITAN Icd 35-45-60-75-100 s01 Tav.2/8

P.	COD.	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	Z22.38835	Assieme completo mensole	Pan holding assy	Appuie bac compl.	Becken-Abstellsystem kompl.	Apoyo cubeta completo
2	B50.38828	Supporto mensole	Pan support	Support bac	Beckenhalter	Apoyo cubeta
3	P01.38833	Fermo vasca "A"	Pan fixing "A"	Ferme-bac "A"	Becken-Halter "A"	Retén-cuba "A"
4	P01.38834	Fermo vasca "B"	Pan fixing "B"	Ferme-bac "B"	Becken-Halter "B"	Retén-cuba "B"
5	Z22.38832	Mensola	Shelf	Console	Ablage	Ménsula
6	A03.38964	Piastra fissaggio mensole	Shelf fixing	Fixage console	Ablage-Fixierung	Fixaje Mensula
7	V14.0001	Dado ad alette	Nut	Ecrou	Mutter	Tuerca
8	Z22.38826	Assieme balconcino	Compl. Drip tray	Egoittoir compl	Kompl. Tropfblech	Recogegotas compl.
9	Z22.38823	Griglia balconcino	Grate	Grille com	Gitter	Rejilla
10	D06.157	Pressacavo	Cable grip	Presse-fils	Kabelhalter	Sujeta-cables
11	B50.38794	Balconcino	Rest	Support	Buegel	Repisa
12	C05.165	Disco	Disc	Disque	Scheibe	Disco
13	P19.35274	Tappo di tenuta	Plug seal	Bouchon	Abdichtungsverschluss	Tapon
14	P10.077	OR 119	OR 119	OR 119	OR 119	OR 119
15	P19.35273	Salvagocce ABS	Dip protection	Protège-goutte ABS	Tropfenschutz ABS	Proteccone de gotas ABS
16	P17.35275	Canotto scarico	Drain pipe	Tuyau d'évacuation	Abflußrohr	Tubo de descarga
17	P10.040	OR 2081	OR 2081	OR 2081	OR 2081	OR 2081

TITAN Icd 35-45-60-75-100 s01 Tav.3/8

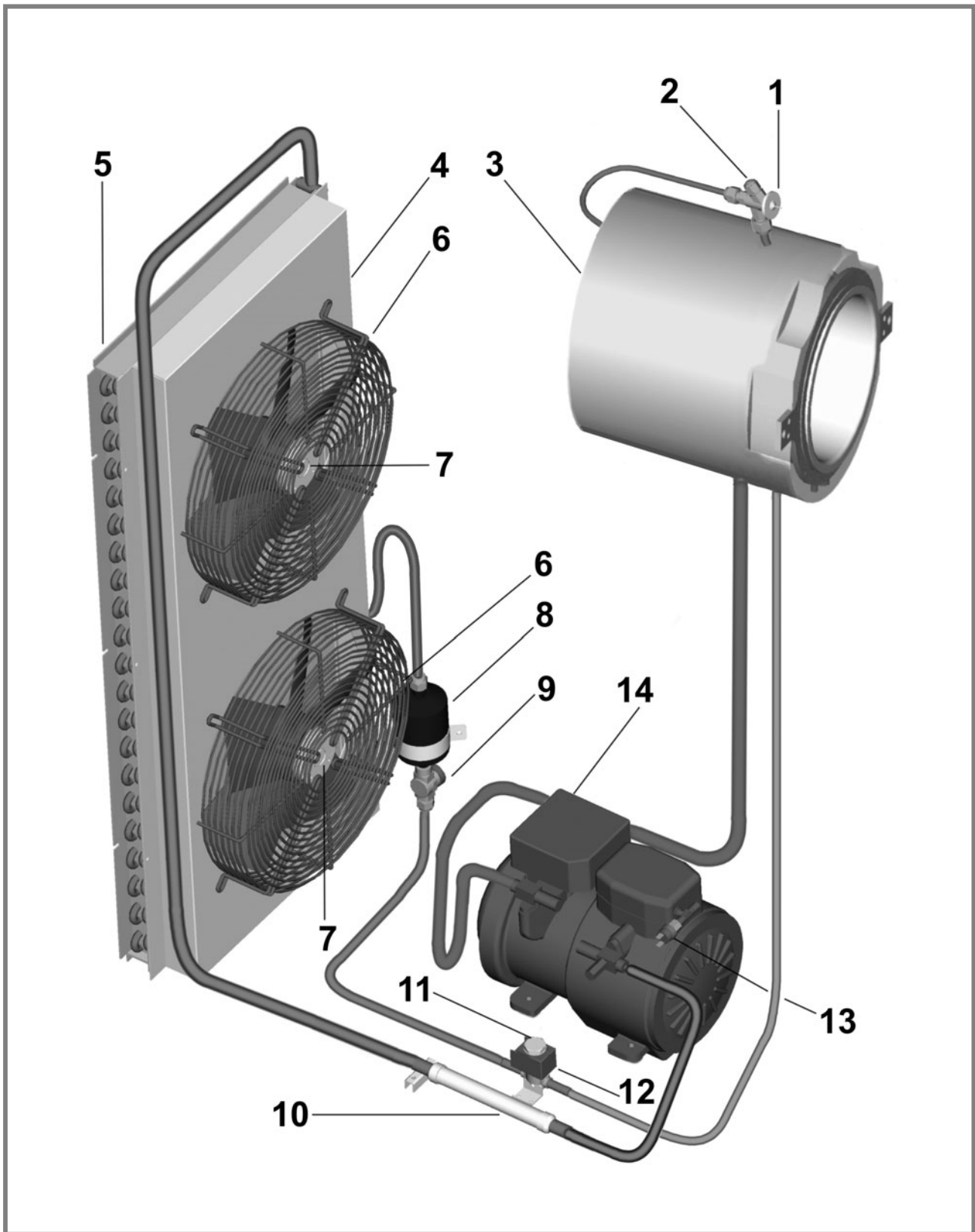


TITAN Icd 35-45-60-75-100 s01 Tav.3/8

P.	COD.	Mod. TITAN Icd	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	A02.189	35-45-60-75-100	Valvola termostatica	Thermostatic valve	Soupape thermostatique	Thermostatisches Ventil	Válvula termostática
2	A02.169	35	Orificio per valvola termostatica	Orifice for thermostatic valve	Orifice soupape thermostatique	Öffnung für thermost. Ventil	Orificio válvula termostática
2	A02.170	45-60	Orificio per valvola termostatica	Orifice for thermostatic valve	Orifice soupape thermostatique	Öffnung für thermost. Ventil	Orificio válvula termostática
2	A02.171	75-100	Orificio per valvola termostatica	Orifice for thermostatic valve	Orifice soupape thermostatique	Öffnung für thermost. Ventil	Orificio válvula termostática
3	A06.151	35	Gruppo isolamento	Insulation unit	Groupe isolant	Isolationsgruppe	Grupo aislamiento
3	Z56.38683	45	Gruppo isolamento	Insulation unit	Groupe isolant	Isolationsgruppe	Grupo aislamiento
3	A06.121	60	Gruppo isolamento	Insulation unit	Groupe isolant	Isolationsgruppe	Grupo aislamiento
3	Z56.38838	75	Gruppo isolamento	Insulation unit	Groupe isolant	Isolationsgruppe	Grupo aislamiento
3	A06.153	100	Gruppo isolamento	Insulation unit	Groupe isolant	Isolationsgruppe	Grupo aislamiento
4	B04.35032	35-45-60-75-100	Filtro	Filter	Filtre	Filter	Filtro
5	A07.046	35-45-60-75-100	Spia liquido	Liquid sight glass	Témoin pour liquide	Flüssigkeitskontrolllampe	Testigo líquido
6	Z71.37290	35-45-60-75-100	Gruppo valvola pressostatica	Pressare valve assy	Groupe soupape pressostatique	Druckventil kompl.	Válvula presostática
7	A03.090	35	Condensatore ad acqua	Water condenser	Condensateur à eau	Wasserkondensator	Condensador de agua
7	A03.091	45-60	Condensatore ad acqua	Water condenser	Condensateur à eau	Wasserkondensator	Condensador de agua
7	A03.095	75-100	Condensatore ad acqua	Water condenser	Condensateur à eau	Wasserkondensator	Condensador de agua
8	R09.001.02	35-45-60	Antivibrante	Vibration damper	Antivibratoire	Schwingungs-dämpfer	Antivibrante
8	R09.001.03	75-100	Antivibrante	Vibration damper	Antivibratoire	Schwingungs-dämpfer	Antivibrante
9	A02.152	35-45-60-75-100	Elettrovalvola	Solenoid valve	Electrovanne	Elektroventil	Electroválvula
10	A02.154	35-45-60-75-100	Bobina elettrovalvola	Solenoid valve coil	Bobine électrovanne	Spule Elektroventil	Bobina electroválvula
11	T50.016	35-45-60-75-100	Capillare valvola pressostatica	Capillary tube for water valve	Capillaire soupape thermostatique	Kapillares Druckventil	Capilar válvula presostática
12	B01.38425	35	Compressore 400/50/3	Compressor 400/50/3	Compresseur 400/50/3	Kompressor 400/50/3	Compresor 400/50/3
12	B01.37698	45	Compressore 400/50/3	Compressor 400/50/3	Compresseur 400/50/3	Kompressor 400/50/3	Compresor 400/50/3
12	B01.38803	60	Compressore 400/50/3	Compressor 400/50/3	Compresseur 400/50/3	Kompressor 400/50/3	Compresor 400/50/3
12	B01.38728	75	Compressore 400/50/3	Compressor 400/50/3	Compresseur 400/50/3	Kompressor 400/50/3	Compresor 400/50/3
12	B01.38802	100	Compressore 400/50/3	Compressor 400/50/3	Compresseur 400/50/3	Kompressor 400/50/3	Compresor 400/50/3
13	A02.140	35-45-60-75-100	Pressostato	Pressure switch	Pressostat	Druckwächter	Presóstato
14	R02.114	35-45-60-75-100	Raccordo bicono F/F 10/8x3/8" Gas	Double-taper F/F 10/8x3/8" Gas	Raccord bi-conique F/F 10/8x3/8" Gas	Anschlußstück zweikegelig F/F	Unión bicono F/F 10/8x3/8" Gas
15	R03.019	35-45-60-75-100	Gomito M-M 3/8" Gas	Elbow M-M 3/8" Gas	Coude M-M 3/8" Gas	M-Bogen-M 3/8" Gas	Codo M-M 3/8" Gas
16	A02.061	35-45-60-75-100	Valvola pressostatica	Water valve	Soupape pressostatique	Druckventil	Válvula presostática
17	R05.009	35-45-60-75-100	Raccordo a T F/F/M 3/8" Gas	Tee-joint F/F/M 3/8" Gas	Raccord en T F/F/M 3/8" Gas	T Anschlußstück F/F/M 3/8" Gas	Unión en T F/F/M 3/8" Gas
18	E09.37287	35-45-60-75-100	Pressacavo	Cable grip	Presse-fils	Kabelhalter	Sujeta-cables
19	R02.113	35-45-60-75-100	Nipplo ridotto 1/2"x3/8" Gas	Reduced nipple 1/2"x3/8" Gas	Raccord fileté réduit 1/2"x 3/8" Gas	Verkleinerter Nippel 1/2"x3/8" Gas	Niple reducido 1/2"x3/8" Gas
20	R03.058	35-45-60-75-100	Gomito 90° M/F 3/8" Gas	Elbow 90° M/F 3/8" Gas	Coude 90° M/F 3/8" Gas	Bogen 90° M/F 3/8" Gas	Codo 90° M/F 3/8" Gas

TITAN Icd 35 s01

Tav.4/8

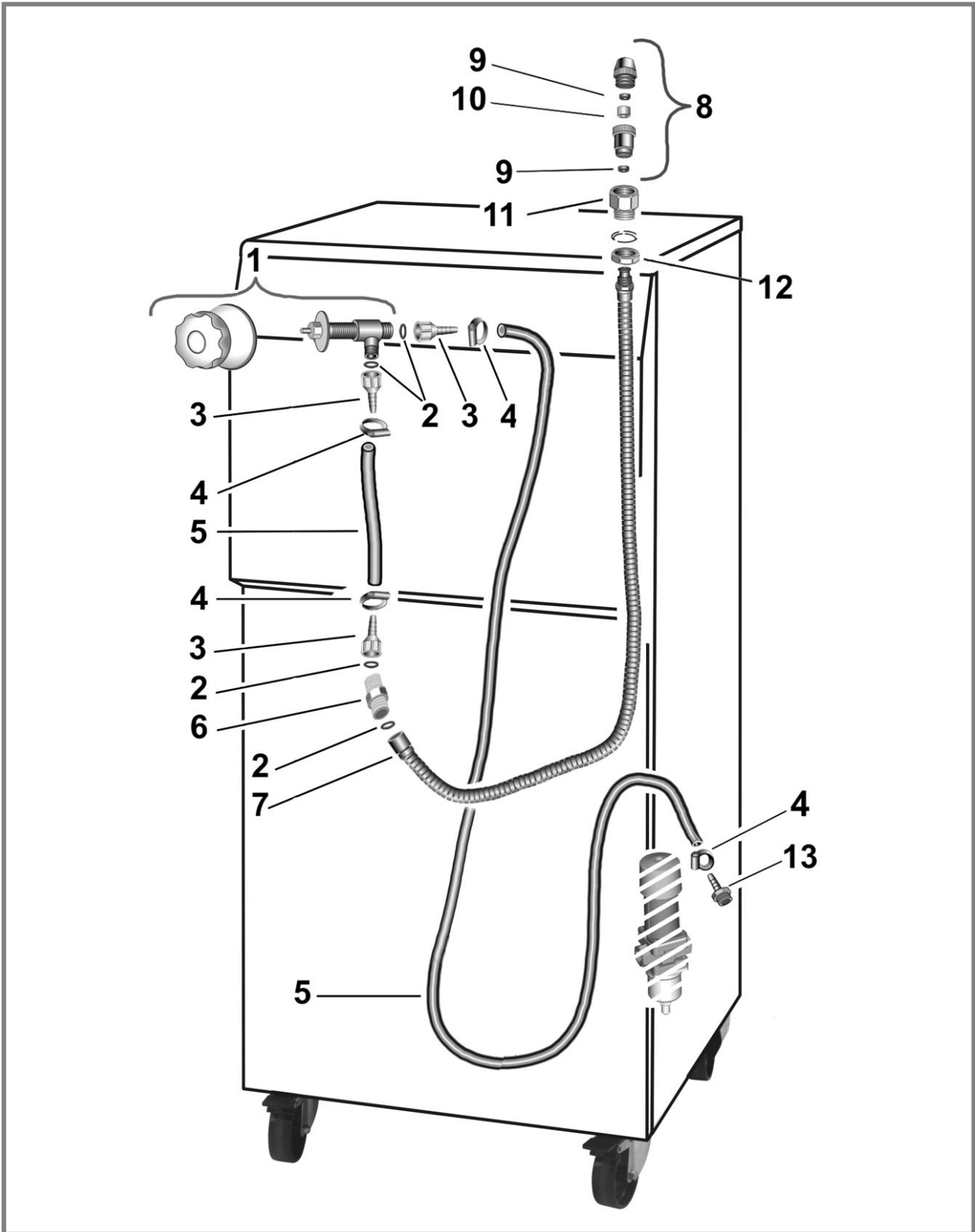


TITAN Icd 35 s01

Tav.4/8

P.	COD.	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	A02.189	Valvola termostatica	Thermostatic valve	Soupape thermostatique	Thermostatisches Ventil	Válvula termostática
2	A02.169	Orificio per valvola termostatica	Orifice for thermostatic valve	Orifice suopape thermostatique	Öffnung für thermost. Ventil	Orificio válvula termostática
3	A06.151	Gruppo isolamento	Insulation unit	Groupe isolant	Isolationsgruppe	Grupo aislamiento
4	A04.38734	Convogliatore	Conveyor	Convoyeur	Kühlerhaube	Transportador
5	B02.37252	Condensatore aria	Air condenser	Condensateur à air	Luftkondensator	Condensador aire
6	B03.37449	Griglia	Grate	Grille	Gitter	Rejilla
7	E01.37422	Motore ventilatore	Fan motor	Moteur du ventilateur	Ventilatormotor	Motor ventilador
8	B04.35032	Filtro	Filter	Filtre	Filter	Filtro
9	A07.046	Spia liquido	Liquid sight glass	Témoin pour liquide	Flüssigkeitskontrollampe	Testigo líquido
10	R09.001.01	Antivibrante	Vibration damper	Antivibratoire	Schwingungs-dämpfer	Antivibrante
11	A02.152	Elettrovalvola	Solenoid valve	Electrovanne	Elektroventil	Electroválvula
12	A02.154	Bobina elettrovalvola	Solenoid valve coil	Bobine électrovanne	Spule Elektroventil	Bobina electroválvula
13	A02.140	Pressostato	Pressure switch	Pressostat	Druckwächter	Presóstato
14	B01.38425	Compressore 400/50/3	Compressor 400/50/3	Compresseur 400/50/3	Kompressor 400/50/3	Compresor 400/50/3

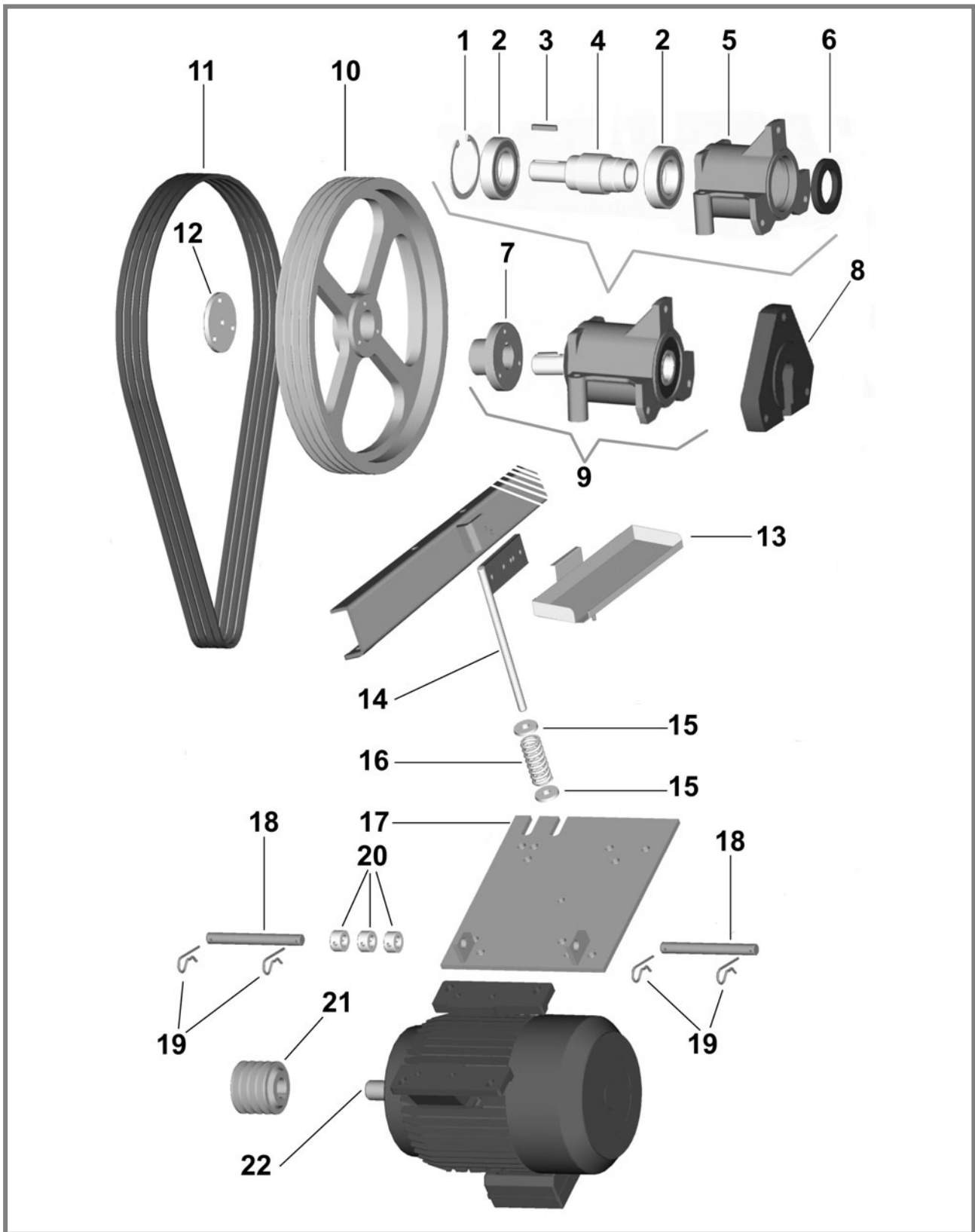
TITAN lcd 35-45-60-75-100 s01 Tav.5/8



TITAN Icd 35-45-60-75-100 s01 Tav.5/8

P.	COD.	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	A10.007	Rubinetto	Cock	Robinet	Ausgabehahn	Grifo
2	P06.085	Guarnizione	Basket	Joint	Dichtung	Guarnición
3	P09.38929	Portagomma 1/2" X 13	Hose connector 1/2" X 13	Porte-caoutchouc 1/2" X 13	Gummihalter 1/2" X 13	Portagoma 1/2" X 13
4	B13.40	Fascetta 12	Clamp 12	Bague 12	Klemme 12	Abrazadera 12
5	T10.011	Tubo retinato	Meshed tube	Tuyau armé	Netzrohr	Tubo armado
6	R02.113	Nipplo ridotto 1/2"x3/8" Gas	Reduced nipple 1/2"x3/8" Gas	Raccord fileté réduit 1/2" x 3/8" Gas	Verkleinerter Nippel 1/2"x3/8" Gas	Niple reducido 1/2"x3/8" Gas
7	A10.013	Tubo doccia	Shower hose	Tuyau douchette	Duschschlauch	Tubo ducha
8	A10.003	Terminale per doccetta	Shower terminal	Terminal de douche	Duschenteil	Terminal ducha
9	P06.011	Guarnizione per flessibile	Hose gasket	Joint pour flexible	Schlauchdichtung	Guarnición flexible
10	P06.030.02	Guarnizione per terminale	Terminal gasket	Joint terminal	Dichtung für Endanschluß	Guarnición terminal
11	A10.005	Manicotto doccetta	Sleeve for shower	Manchon pour douchette	Muffe f. Dusche	Manguito por ducha
12	V13.037	Dado esagonale 1/2"	Hexagon nut 1/2"	Ecrou hexagonal 1/2"	Sechskantmutter 1/2"	Dado exagonal 1/2"
13	R07.019	Portagomma F 3/8" Gas	Hose connector F 3/8" Gas	Terminal de douche F 3/8" Gas	Schlauchansschluß F 3/8" Gas	Portagoma F 3/8" Gas

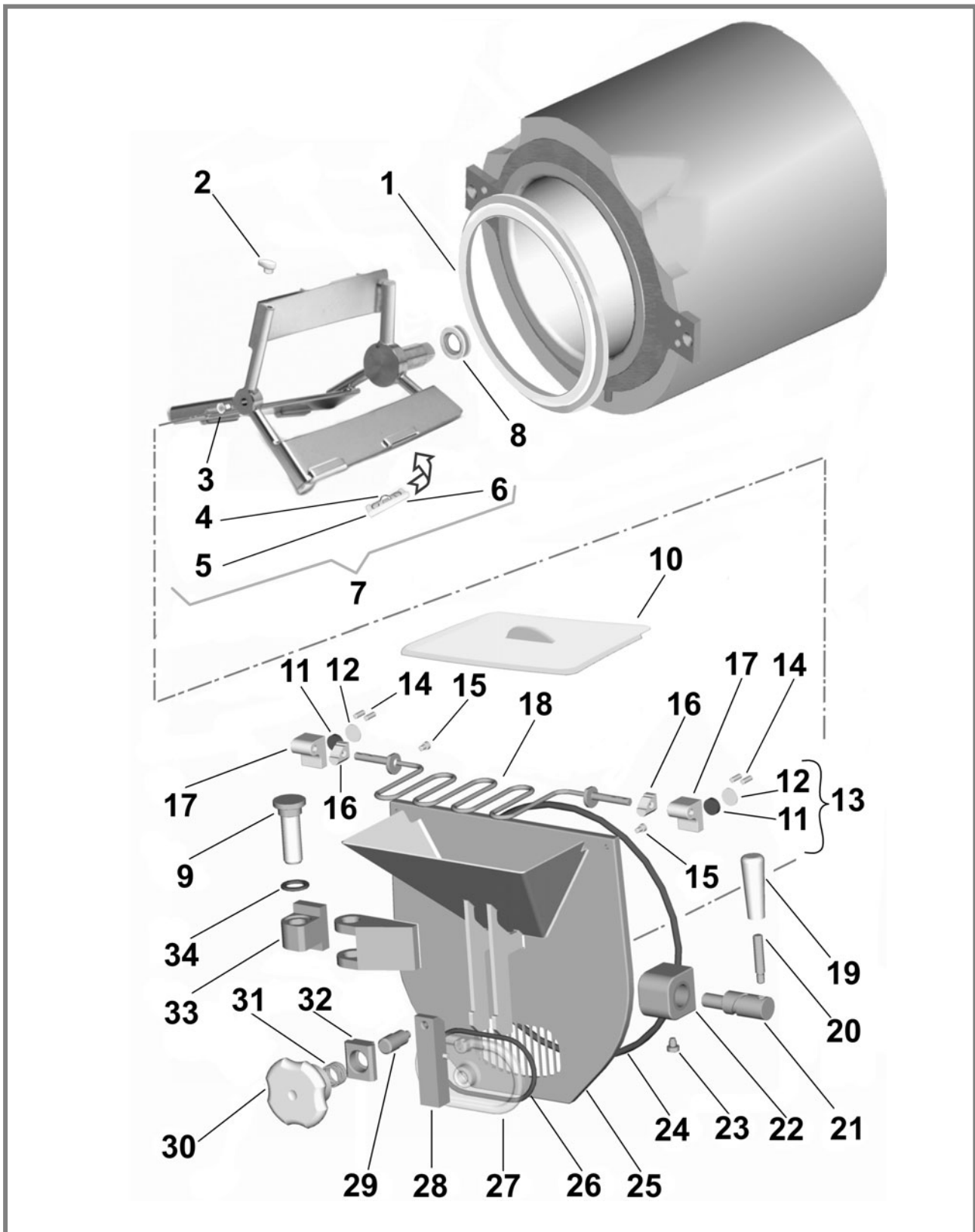
TITAN Icd 35-45-60-75-100 s01 Tav.6/8



TITAN Icd 35-45-60-75-100 s01 Tav.6/8

P.	COD.	Mod. TITAN Icd	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	V17.37933	35-45-60-75-100	Seeger DI90	Seegerring	Seeger	Seegerring	Seeger
2	B14.007	35-45-60-75-100	Cuscinetto	Bearing	Galet	Kugellager	Cojinete
3	B04.131	35-45-60-75-100	Chiavetta	Key	Clavette	Keil	Chaveta
4	L21.38699	35-45-60	Perno condotto	Driven pin	Axe	Bolzen	Pernio canal
4	B04.106	75-100	Perno condotto	Driven pin	Axe	Bolzen	Pernio canal
5	L21.38698	35-45-60	Corpo supporto	Body	Corp du support	Gehäuse	Cuerpo soporte
5	B04.120	75-100	Corpo supporto	Body	Corp du support	Gehäuse	Cuerpo soporte
6	P11.043	35-45-60-75-100	Anello di tenuta	Seal Ring	Joint	Dichtung	Arandela de sujecion
7	B02.055	35-45-60-75-100	Mozzo puleggia	Hub	Moyeu	Nabe	Eje pulea
8	B10.235	35-45-60-75-100	Guarnizione post.	Termic trap	Joint postérieur	Hintere Abdichtung	Guarnición post.
9	Z75.38700	35-45-60	Assieme supporto	Support assy	Support compl.	Kompl. Halter	Conjunto soporte
9	B04.122	75-100	Assieme supporto	Support assy	Support compl.	Kompl. Halter	Conjunto soporte
10	L06.38864	35-45	Puleggia condotta 400/50/3	Driven pulley 400/50/3	Poulie conduite 400/50/3	Geführte Rolle 400/50/3	Pulea conducta 400/50/3
10	L06.38865	60-75-100	Puleggia condotta 400/50/3	Driven pulley 400/50/3	Poulie conduite 400/50/3	Geführte Rolle 400/50/3	Pulea conducta 400/50/3
11	P10.38822	35-45-60-75-100	Cinghia	Belt	Courroie	Riemen	Correa
12	B02.051	35-45-60 75-100	Piattello pul.cond.	Driven pulley plate	Plat de poulie	Scheibe fuer Rolle	Platito polea
13	A04.38733	35-45-60	Sgocciolatoio	Drip tray	Recueille-gouttes	Tropfblech	Recogedor
13	A04.38770	75-100	Sgocciolatoio	Drip tray	Recueille-gouttes	Tropfblech	Recogedor
14	F03.228	35-45-60-75-100	Staffa tirante	Bolt	Tige	Bride	Estafa tirante
15	P04.095	35-45-60-75-100	Rondella in gomma	Rubber washer	Ecrou en caoutchouc	Gummi-Scheibe	Arandela en goma
16	B11.026	35-45-60-75-100	Molla	Spring	Ressort	Feder	Muelle
17	A04.37413	35-45-60-75-100	Piastra motore	Support plate	Support du moteur	Motorhalter	Brida motor
18	L21.37520	35-45-60-75-100	Perno	Hinge pin	Axe du fermoir	Scharnierbolzen	Pernio broche
19	V14.071.02	35-45-60-75-100	Copiglia sagomata	Split pin	Goupille	Splinte	Chaveta moldurado
20	B10.236	35-45-60-75-100	Boccola	Bush	Douille	Buchse	Hebilla
21	B02.008	35	Puleggia motore 400/50/3	Driving pulley 400/50/3	Poulie de conduite 400/50/3	Führungsrolle 400/50/3	Pulea conductora 400/50/3
21	B02.017	45-60-75-100	Puleggia motore 400/50/3	Driving pulley 400/50/3	Poulie de conduite 400/50/3	Führungsrolle 400/50/3	Pulea conductora 400/50/3
22	B01.343	35	Motore mescolatore 400/50/3	Beater motor 400/50/3	Moteur mélangeur 400/50/3	Rührmotor 400/50/3	Motor agitador 400/50/3
22	B01.342	45-60	Motore mescolatore 400/50/3	Beater motor 400/50/3	Moteur mélangeur 400/50/3	Rührmotor 400/50/3	Motor agitador 400/50/3
22	B01.352	75	Motore mescolatore 400/50/3	Beater motor 400/50/3	Moteur mélangeur 400/50/3	Rührmotor 400/50/3	Motor agitador 400/50/3
22	B01.35186	100	Motore mescolatore 400/50/3	Beater motor 400/50/3	Moteur mélangeur 400/50/3	Rührmotor 400/50/3	Motor agitador 400/50/3

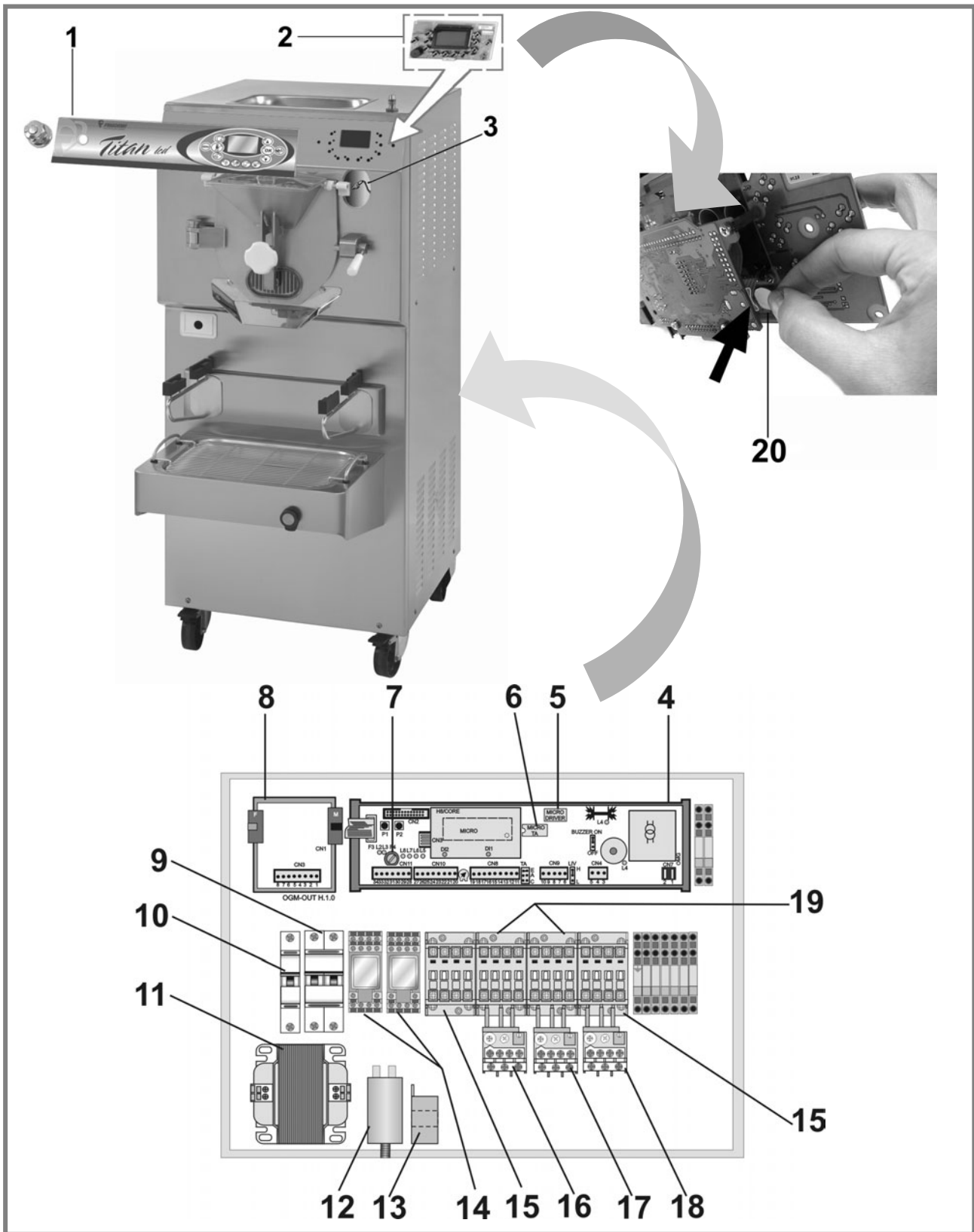
TITAN Icd 35-45-60-75-100 s01 Tav.7/8



TITAN Icd 35-45-60-75-100 s01 Tav.7/8

P.	COD.	Mod. TITAN Icd	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	P03.120.01	35-45-60-75-100	Isolante anteriore	Front insulator	Isolant antérieur	Vorderes-Isolationselement	Aslante anterior
2	P18.37146	35-45-60-75-100	Tappo centratura	Centering boss	Bouchon de centrage	Duebel	Tapon de cierre
3	P18.37144	35-45-60-75-100	Inserto centrale	Central insert	Bouchon	Einsatz	Injerto central
4	A10.38854	35-45-60-75-100	Molla per pattino	Scraper spring	Ressort râclette	Schaber-Feder	Patines-muella
5	P18.38853	35-45-60-75-100	Aletta lavorata	Scraper	Râclette	Schaber	Patines
6	Z69.39012	35-45-60-75-100	Completo aletta+molla	Scraper+spring	Ressort+râclette	Schaber+Feder	Patines+muella
7	Z70.38855	35	Agitatore completo	Beater assy	Agitateur compl.	Rührwerk	Agidador
7	Z70.38858	45	Agitatore completo	Beater assy	Agitateur compl.	Rührwerk	Agidador
7	Z70.38850	60	Agitatore completo	Beater assy	Agitateur compl.	Rührwerk	Agidador
7	Z70.38860	75	Agitatore completo	Beater assy	Agitateur compl.	Rührwerk	Agidador
7	Z70.38862	100	Agitatore completo	Beater assy	Agitateur compl.	Rührwerk	Agidador
8	P12.005	35-45-60-75-100	Premistoppa	Stuffing nut	Presse-étoupe	Stopfbüchse	Prensaestopa
9	B08.061	35-45-60-75-100	Perno cerniera	Pin for hinge	Goujon pour fermoir	Scharnierstift	Perno bisagra
10	P03.169	35-45-60-75-100	Copritramoggia	Hopper cover	Couvercle de trémie	Einfüllrichtergitter	Tapa tolva
11	D05.142	35-45-60-75-100	Magnete	Magnet	Aimant	Magnet	Imán
12	C05.159	35-45-60-75-100	Dischetto	Small disk	Petit disque	Scheibe	disco
13	Z82.38447	35-45-60-75-100	Assieme portamagnete	Magnet assy	Aimant complet	Kompl. Magnet	portaiman
14	V08.031	35-45-60-75-100	Grano	Grain	Grain	Stift	Tornillo
15	V04.37386	35-45-60-75-100	Vite fissaggio bottone	Fixing screw	Vis de fixation	Befestigungsschraube	Tornillo
16	B08.049	35-45-60-75-100	Bottone supporto griglia	Grate bracket	Support de grille	Gitterhalter	Soporte rejilla
17	P02.167.01	35-45-60-75-100	Supporto magnete	Magnet support	Support de l'alimentation	Magnet-Halter	Soporte imán
18	Z82.37166	35-45-60-75-100	Griglia di sicurezza	Grate assy	Grille compl.	Kompl. Bitter	Rejilla
19	P02.155	35-45-60-75-100	Maniglia leva portello	Lever handle	Poignée	Griff	Manija de bloqueo puerta
20	B08.056	35-45-60-75-100	Leva eccentrico	Eccentric lever	Poignée de came	Nochengriff	Leva para excentrica
21	B08.080	35-45-60-75-100	Eccentrico chiusura portello	Door closing cam	Came de fermeture porte	Nochentürverschuß	Excentrico de cierre puerta
22	B08.045	35-45-60-75-100	Blocchetto eccentrico	Block assy	Cale compl.	Block	Grupo bloqueo excentrico
23	B09.114	35-45-60-75-100	Vite fissaggio eccentrico	Fixing screw	Vis de fixation	Befestigungsschraube	Tornillo por excentrico
24	P10.120	35-45-60-75-100	Guarnizione	Door seal	Joint	Dichtung	Guarnición puerta
25	Z84.37161	35-45-60-75-100	Assieme portello	Door assy	Porte compl.	Kompl. Tür	Grupo puerta
26	P10.130	35-45-60-75-100	Guarnizione piattello	Door seal	Joint de porte	Türdichtung	Guarnición por platina de cierre
27	P19.37143	35-45-60-75-100	Portello erogazione	Door assy	Porte compl.	Kompl. Tür	Platina de cierre
28	B08.075	35-45-60-75-100	Corsoio	Slider	Coulisse	Gleitstein	Corredizo
29	B09.214	35-45-60-75-100	Perno di guida	Driving pin	Axe de conduite	Führungsring	Piernu
30	P02.201	35-45-60-75-100	Pomolo portello	Lever handle	Poignée	Griff	Pomo
31	B11.057	35-45-60-75-100	Molla	Spring	Ressort	Feder	Muelle
32	B08.076	35-45-60-75-100	Fodero molla	Spring sleeve	Corp du ressort	Gehäuse	Vaina muelle
33	B08.048	35-45-60-75-100	Blocchetto cerniera	Hinge block	Cale de charnière	Scharnierblock	Soporto bisagra
34	B08.085	35-45-60-75-100	Rondella	Washer	Rondelle	Scheibe	Arandela

TITAN Icd 35-45-60-75-100 s01 Tav.8/8



TITAN Icd 35-45-60-75-100 s01 Tav.8/8

P.	COD.	Mod. TITAN Icd	DESCRIZIONE	DESCRIPTION	DESCRIPTION	BESCHREIBUNG	DESCRIPTION
1	M02.38741	35	Etichetta anteriore	Front label	Etiquette antérieure	Frontkleber	Etiqueta anterior
1	M02.38755	45	Etichetta anteriore	Front label	Etiquette antérieure	Frontkleber	Etiqueta anterior
1	M02.38763	60	Etichetta anteriore	Front label	Etiquette antérieure	Frontkleber	Etiqueta anterior
1	M02.38839	75	Etichetta anteriore	Front label	Etiquette antérieure	Frontkleber	Etiqueta anterior
1	M02.38771	100	Etichetta anteriore	Front label	Etiquette antérieure	Frontkleber	Etiqueta anterior
2	E15.38736	35-45-60-75-100	Scheda pulsantiera	Pushbutton card	Carte du tableau	Tastenfeldkarte	tarjeta pulsadores
-	E13.38317	35-45-60-75-100	Cavo scheda pulsantiera	Wiring pushbutton panel card	Cable carte du tableau de commande	Tastenkarte-Kabel	Cable tarjeta caja pulsadores
3	D05.141	35-45-60-75-100	Reed	Reed	Reed	Reed	Reed
4	E15.38748	35-45-60-75-100	Scheda comando	Control card	Carte de commande	Bedienungskarte	Tarjeta de mando
5	E12.38274	35-45-60-75-100	Micro driver	Micro driver	Micro driver	Micro driver	Micro driver
6	E12.37030	35-45-60-75-100	Micro TA	Micro TA	Micro TA	Micro TA	Micro TA
7	D03.080	35-45-60-75-100	Fusibile 3,5 A	Fuse 3,5 A	Fusible 3,5 A	Sicherung 3,5 A	Fusibile 3,5 A
8	E15.36846	35-45-60-75-100	Modulo uscite OMG	OMG output module	Module sorties OMG	Ausgangsmodul OMG	Modulo salidas OMG
9	D05.166	35-45-60-75-100	Interruttore bipolare	Two-pole switch	Interrupteur bipolaire	Zweipoliger Schalter	Interruptor bipolar
10	D05.167	35-45-60-75-100	Interruttore unipolare	Single-pole switch	Interrupteur unipolaire	Einpoliger Schalter	Interruptor unipolar
11	E08.37452	35-45-60-75-100	Trasformatore	Transformer	Transformateur	Transformator	Transformador
12	E06.37665	35	Condensatore 4 µf	Condenser 4 µf	Condesateur 4 µf	Kondensator 4 µf	Condensador 4 µf
13	D03.157	35-45-60-75-100	Trasformatore amperometrico	AMP Transformer	Transformateur AMP	Amp Transformator	Transformador amp
14	E08.37283	35-45-60-75-100	Relè ritenuta 24 V	Relay	Relais	Relais	Conectador
15	D02.063	35-45-60-75-100	Teleruttore A16 30 10	Remote control switch A16 30 10	Télérupteur A16 30 10	Fernschalter A16 30 10	Telerruptor A16 30 10
16	D03.162	35	Termica Range 6-8,5	Overload Range 6-8,5	Thermique Range 6-8,5	Thermoschutz Range 6-8,5	Termal Range 6-8,5
16	D03.164	45	Termica Range 7,5-11	Overload Range 7,5-11	Thermique Range 7,5-11	Thermoschutz Range 7,5-11	Termal Range 7,5-11
16	D03.165	60-75-100	Termica Range 10-14	Overload Range 10-14	Thermique Range 10-14	Thermoschutz Range 10-14	Termal Range 10-14
17	D03.162	35	Termica Range 6-8,5	Overload Range 6-8,5	Thermique Range 6-8,5	Thermoschutz Range 6-8,5	Termal Range 6-8,5
17	D03.165	45-60-75-100	Termica Range 10-14	Overload Range 10-14	Thermique Range 10-14	Thermoschutz Range 10-14	Termal Range 10-14
18	D03.162	35	Termica Range 6-8,5	Overload Range 6-8,5	Thermique Range 6-8,5	Thermoschutz Range 6-8,5	Termal Range 6-8,5
18	D03.164	45	Termica Range 7,5-11	Overload Range 7,5-11	Thermique Range 7,5-11	Thermoschutz Range 7,5-11	Termal Range 7,5-11
18	D03.165	60-75-100	Termica Range 10-14	Overload Range 10-14	Thermique Range 10-14	Thermoschutz Range 10-14	Termal Range 10-14
19	E08.35303	35-45-60-75-100	Teleruttore A16 30 01	Remote control switch A16 30 01	Télérupteur A16 30 01	Fernschalter A16 30 01	Telerruptor A16 30 01
20	E13.38414	35-45-60-75-100	Batteria pulsantiera	Pushbutton panel battery	Batterie Tableau de commande	Tastenkarte-Batterie	Pilas tarjeta caja pulsadores

1) LOUDNESS

SOUND EMISSION LEVEL IN DECIBEL (measurement method A) As per directive 89/392 standard EN 23741 (Weighted equivalent continuous acoustic pressure level A)			
MODEL	LEVEL (A)	MODEL	LEVEL (A)
Kream 2,5	< = 58 dB (A)	Peb 2 x 60 LCD	< = 68 dB (A)
Kream 3	< = 58 dB (A)	Peb 130 LCD	< = 68 dB (A)
Kream 9/6	< = 58 dB (A)	T5S	< = 68 dB (A)
Kikka 1	< = 64 dB (A)	T4S	< = 68 dB (A)
Kikka 3	< = 67 dB (A)	Titan 1 - Titan 100 Titan 75	< = 72 dB (A)
Karat 1	< = 68 dB (A)	Titan 2 – Titan 60 Titan 45	< = 70 dB (A)
Karat 3	< = 68 dB (A)	Titan 3S – Titan 35	< = 70 dB (A)
Arlecchino	< = 64 dB (A)	TME 60	< = 68 dB (A)
Kolor	< = 68 dB (A)	Twin 2 -Twin 60- Twin 45	< = 70 dB (A)
Ketty / Kristal	< = 64 dB (A)	Twin 3 – Twin 35	< = 70 dB (A)
Le Petit Chef	< = 70 dB (A)	Twin 4	< = 68 dB (A)
Le Chef	< = 70 dB (A)	Mix 8	< = 58 dB (A)
Peb 30 LCD	< = 66 dB (A)	Vibe 8	< = 70 dB (A)
Peb 60 LCD	< = 68 dB (A)	Vibegel	< = 70 dB (A)

2) DISPOSAL OF PACKING MATERIAL

After the crate or the box have been opened we recommend to sort the different materials according to their nature and to dispose them in accordance to the local country regulations.

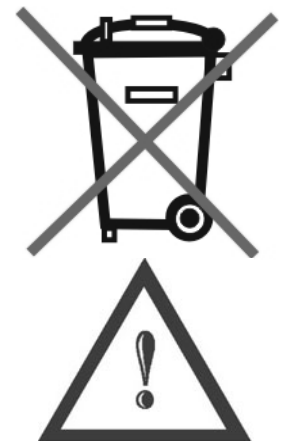
3) OUT OF COMMISSION - INSTRUCTIONS

The equipment includes electrical and/or electronic parts and might contain fluids and/or oils. For its out of commissioning or disposal refer to the local country regulations.

4) EMERGENCY INSTRUCTIONS

The fire engines must be compatible with the eventual tension on board .

5) OTHER RISKS



VALID FOR THE FOLLOWING MODELS:

- Mix 8
- Peb 30
- Peb 60
- Peb 2x60
- Peb 130
- Le Chef
- Le Petit Chef
- Twin 2
- Twin 3
- Twin 4



**LIFT THE TANK'S LID WITH THE
UTMOST ATTENTION AND
PROTECT YOURSELF
ACCORDINGLY**

HEAT DANGER

The steam can be dangerous for the operator lifting the lid if the tank contains very hot mix



Titan Ice



Azienda Certificata
UNI EN ISO 9001:2000

Numero Certificato
50 100 5650

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MARCH 2007

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