TECNOFREEZE

FRUIT FEEDER
" IF/100"

INSTRUCTION MANUAL

Serial Number

0 1 0 1 - 0 8

CE

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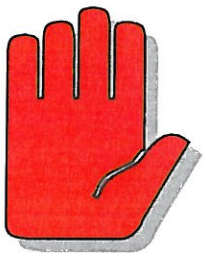

ATTENTION!

-THE PRESENT BOOKLET IS PART INTEGRAL OF THE MACHINE.

-READ CAREFULLY THE NOTICES AND THE INSTRUCTIONS HERE CONTAINED BECAUSE THEY SUPPLY WITH SOME IMPORTANT INDICATIONS CONCERNING THE USAGE AND MAINTENANCE SAFETY.

-KEEP THIS BOOKLET FOR ANY FURTHER REFERENCES WITH CARE.

PREFACE

The aim of this manual is to supply with the most detailed information to our Customers so that they can keep and exploit the performances offered by our machines best.
At the same time, the Company **TECNOFREEZE** wishes to be in a position to lead you during the simple maintenance actions so to be able to solve unforeseen damage.
Some advice about the SAFE use of our machine completes this **USAGE AND MAINTENANCE** manual.

We are sure to have answered the needs of more and more careful and professional Customers and we thank you for the preference given to our products, by granting you that these represent what is the most advanced technologically and the most reliable you can find on the market nowadays.

AIM

The Fruit Feeder IF100 was built with the only aim to be able to feed in a continuous way fresh fruit pieces, candied fruit, granular products such as nuts and nougat, chocolate and a wide range of products normally used in ice cream production.
The features of every single machine specifically reported determine the precise usage and limitations.
Some working functions and/or usage ways not foreseen by the present text, are to be considered beyond the project features of the machine itself, so not assured and granted by the manufacturer.

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1.0 HOW TO READ AND USE THE MANUAL

-Keep the present manual in a accessible place and known to all the operators.
-Use the manual in such a way not to damage the content either wholly or partially.
-Do not remove, tear or write parts of the manual for any reason.
-Keep the manual in areas protected from moisture and heat.
-By consulting THE GENERAL INDEX you can easily go back to all the notes relative to a certain topic.

Hereinafter the identification plate is reproduced.
It itself is stuck on the rear panel of the machine, the serial number stamped on the plate must be quoted every time that you consult the Constructing Company, either for information or to order spare parts.
Moreover on it itself the value of the electric connection is reproduced.

TECNOFREEZE CE
Strada Spinedi 22/24 tel.0039-0382/77554
27010 MIRADOLO TERME (PV)

Modello		Kw.	
Matricola		V.	
Anno		Hz.	
Cicli		Kg.	
Quantità		Gas Freon	

2.0 OBSERVATIONS AND IMPORTANT ADVICE

-The present instruction manual is part integral of the machine and it will have to be kept for any future consulting.

-In case either of sale or transference of the machine to other person, the present manual must be delivered to the new user so that he can be advised about the functioning and its relative notices.

-Read carefully the notices contained in the present instruction manual before installing the machine. These notices were written for installation safety, usage and maintenance.

-Possible notices or schemes relative to peculiar models will be supplied together with the present instruction manual.

-The pictures and the drawings that represent the machine are to be considered only as a general reference and necessarily precise in every detail.

-The dimensions and the features of the machine, given in this manual, are not binding and they can be modified without any notice.

-The drawings and all the other papers supplied as a part of this machine are property of the Company **TECNOFREEZE** and they must not be given to third-party without any written authorization.

-Always turn the current switch down on the electric panel of the machine before proceeding to any cleaning and maintenance operation.

-Any change to the machine became necessary will have to be carried out exclusively by skilled staff **TECNOFREEZE**,by previous authorization of the building firm itself.

-This machine is used for being able to feed continually pieces of fresh fruit, candied fruit, granular products such as hazel-nuts and nougat, chocolate and a wide typology of products usually used in the ice cream production. Any usage of the machine, that is not the one as above-stated is to be considered improper.

-It has been designed to be used by adults, avoid that children get near with the intention of playing with it.

-Modifying or trying to modify this machine, besides letting lose any guarantee, is dangerous.

-To guarantee the efficiency of the machine, and for its correct working, it is essential to follow the builder constructor's indications by having the maintenance carried out by skilled staff.

-Never try to repair it by yourselves because the intervention of unskilled people ,besides being dangerous, may cause serious damage. In case of failure get in touch the builder constructor, who will be able to advise about the nearest Authorized Service Centre.

-We suggest you always and only to ask for original spare parts.

3.0 NOTICES FOR THE MACHINE USAGE

- The staff operating with this machine must know and respect the general safety rules scrupulously.
The non respect of the rules may cause injuries to the staff and damage the machine components.

-All the interventions both concerning the maintenance and concerning the cleaning must be carried out peremptorily with the general power switch off. (It is advisable during the maintenance, to wear some work gloves)

-The user must make sure that all the instructions contained in the manual are perempto rily carried out.

-The machine must be supported by a good general lighting system, that allows a good vision of all the operations.

-Verify frequently that all the safety devices are perfectly working.

-In case of a sudden power lack the machine will stop immediately, for the restarting of the production cycle you will have to proceed to the restart by means of the general switch.

4.0 PLATE DATA

The voltage and frequency data are reported on the serial number plate , located on the machine , and you refer to it for any check or verification.

5.0 ELECTRICAL DIAGRAM

The electrical diagram is located in the suitable space inside the electrical board.
To be able to approach, take off voltage by rotating the general switch located on the rear of the machine, remove the board and open the door of the electrical board.

6.0 MACHINE DESCRIPTION

-This machine has been planned and made to satisfy the reliability and safety needs before a broad usage field and in the observance of the international standards and the hygienic- health rules applicable to the foodstuff machines.
The carpentry of the machine is entirely built in stainless steel and it is mounted on wheels. All the parts directly in contact with the product are entirely either in stainless steel or in foodstuff material.
The automatic machine IF 100 is able to feed continuously pieces of fresh fruit, candied fruit, granular products such as hazelnuts and nougat, chocolate and a wide range of of products normally used in the ice cream production.
It is normally used in production lines between a continuous freezer and a filling machine.
Being conceived as an autonomous unit, to make it productive it is only necessary the link to the electrical network, along with the link with the freezer and the filling machine.

-The equipment consists of three main units:
-Dosing unit, composed essentially by a main hopper, by a Archimedean screw and by a secondary hopper where the ingredients are fed manually by the operator inside the main hopper, so they move by gravity towards the bottom of the hopper where a horizontal axis Archimedean screw is located.
During the descent the ingredients are mixed continuously by a slow agitator, that assures a constant flow of the product to the Archimedean screw.
The Archimedean screw feeds the ingredients inside the secondary hopper where, always by gravity, approach the pump group.

-A pump group composed of a lamella pump, that has the aim to feed the ingredients inside the ice cream flow coming from the continuous freezer.
The lamella pump consists of a rotor inside which some lamellae flow in radial direction. The lamellae are driven by an eccentric guide obtained inside the stator. The pump also carries out the function of seal separator between the ice cream line in pressure and the external environment so as to allow a unidirectional feeding flow of the ingredients of the secondary hopper to the ice cream.

-A line mixer, composed of a shaft with inclined scraper blades, situated inside the piping tract down to the pump group. This unit has the aim to guarantee an intensive product mixture in the ice cream before passing to the filling machine.

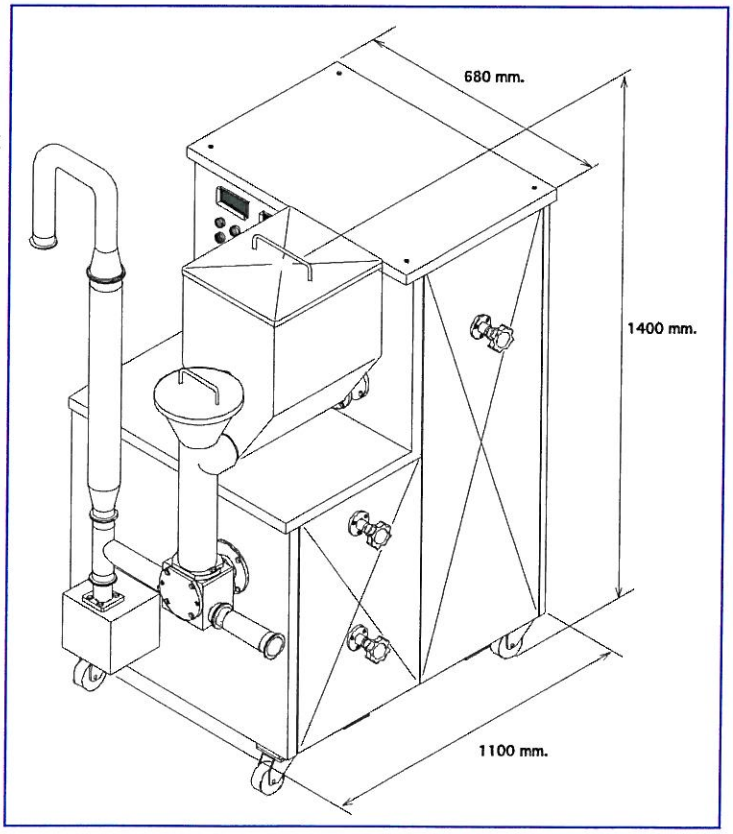
To avoid the accidental contact between the body parts and machine elements in move, the machine is supplied with panels and protections fixed by screws and/or systems requiring however the usage of suitable tools and the operator's .
The cover of the main hopper can be lifted without the help of suitable tools to allow the load of the ingredients by the operator. A fixed protection grid avoids that the operator gets in contact by hazard with the slow agitator of the hopper.

7.0 TECHNICAL FEATURES AND OVERALL

CAPACITY:	The ice cream flow with standard feeder is comprised between 300 and 2000 lt/h		
DIMENSIONS:	A-Length	1100	mm.
	B-Width	800	mm.
	C-Height	1400	mm.
NET WEIGHT:	Kg. 270		
ENVIRONMENTAL LIMITS:	Temperature: from 4°C to 45°C		
	Humidity : from 20% to 95%		

Equivalent Level of the Considered Acoustic Pressure A at 1 Mt.: 68 dBA
Maximum Level of the Considered Instantaneous Acoustic Pressure C in the Work Places: inferior to 130 dB/20uPa.

The sound level meter observations have been carried out both frontally and laterally. With reference to the instructions for the workers' protection D.L.N.277 CAPO IV (dtd 15/08/91)suggest the machine owners to verify such instructions by informing eventually their own staff about the hearing risks as well as by giving them the individual means of protection of the hearing itself.



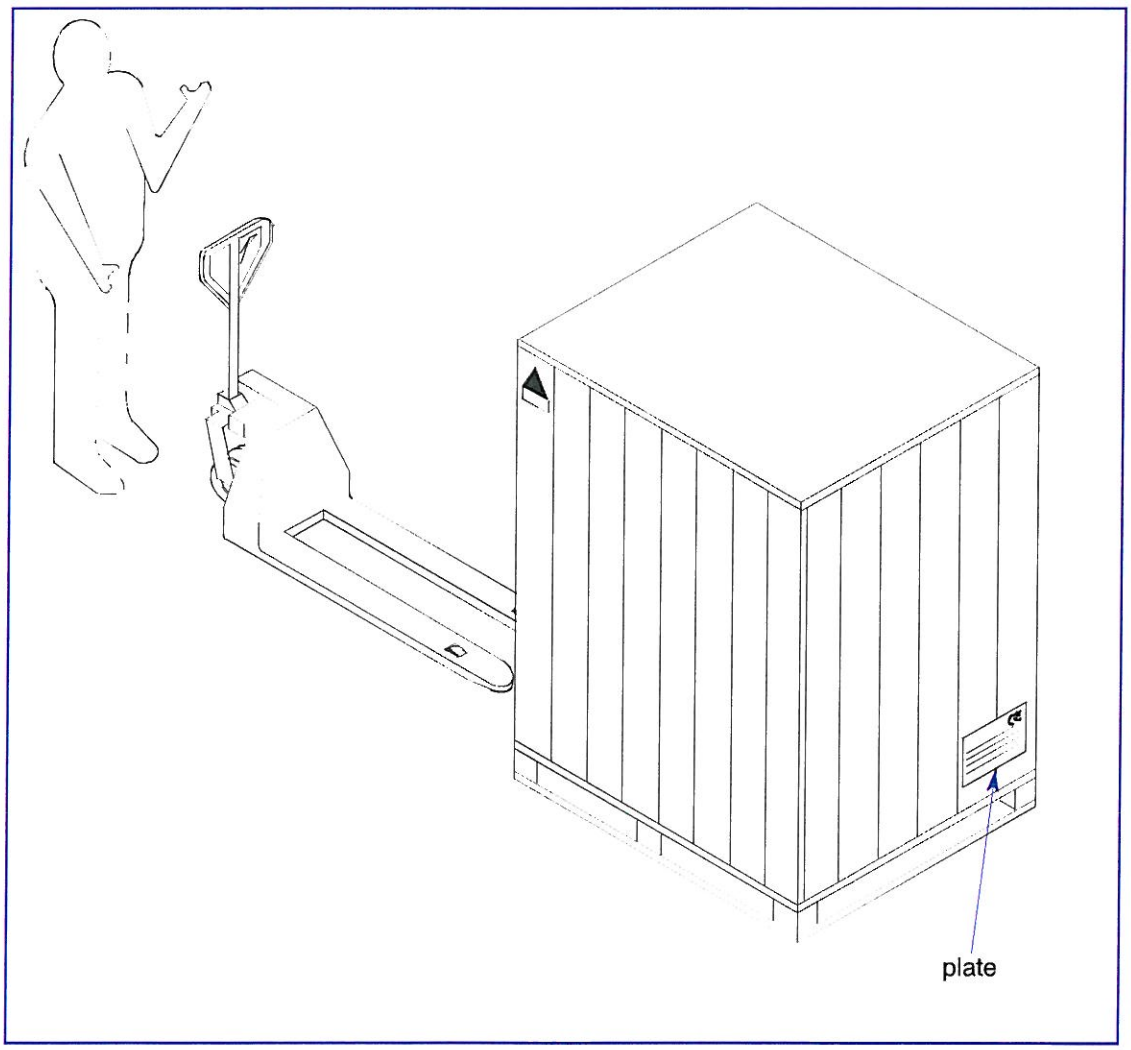
8.0 TRANSPORT INDICATIONS AND WEIGHTS

ATTENTION!

All the transport operations must be carried out by skilled and qualified operators and during the moving of the machine avoid stopping in the dangerous areas.

The gross weight of this machine packed in a wooden case is Kg. 300 and it is indicated on the plate stuck externally (see drawing)

The packaging is movable directly by the operator by or by positioning the forks as indicated in the drawing down here.



9.0 UNPACKING

The packaging must be unloaded the nearest as possible the installation place .When the case has been positioned correctly, proceed to the unpacking as follows:

-Unnail the upper cover and remove it, carry out the same operation with the lateral walls. Pay attention to the spacer woods situated between the case walls.

-Remove from the packaging the box of the spare parts and the other components.

-Unnail the wooden blocks that keep the machine blocked during the transport and remove the protection cellophane.

-Check that the packaging content corresponds to what is indicated in the shipping papers.

-Make sure that all the covers and the panels have been correctly fixed and that there are no loosened parts.
-Check visually all the electrical components to verify their integrity.

-If some parts or components should result missing, stop the unpacking procedure and notify their lack to TECNOFREEZE immediately.

-If the machine has been damaged during the transport inform the Insurance Company immediately and do not proceed to the unpacking any longer until you are authorized by the Company itself.

ATTENTION!
The packaging must be divided in homogeneous parts, drained according to the regulations in force and put in the suitable collection centres.

10.0 SETTING ASIDE

In case of setting aside for a long time it is necessary to unlink the feeding sources, and provide for the machine protection with a PVC sheet to protect itself from dust.

Moreover carry out the following operations:

-PROVIDE FOR THE MACHINE CLEANING WITH WARM WATER.

-ARRANGE TO GREASE THE PARTS THAT COULD DAMAGE IN CASE OF OXIDATION.

11.0 MACHINE LAY-OUT

BEFORE POSITIONING THE MACHINE IN THE HOUSING AREA , PROCEED TO THE FOLLOWING CONTROLS.

-Check that the free space expected around the machine is sufficient to the full opening of all the doors and an easy execution of all the ordinary and extraordinary maintenance operations.
-Check that the floor consistency is so as to bear the machine weight.
-Check that the machine has not undergone any damage during the transport.
-Check that the machine leans on the floor evenly.

The IF 100 **TECNOFREEZE** machine must be as near as possible the filling machine because the ice cream pressure at this point reaches its lowest value and the fed ingredients has the tendency to deposit on the ice cream layer in contact with the pipe.
Consequently, a minor distance between mixer and filler will require an evener distribution of the ingredients in the ice cream.

ATTENTION!
Check that the plate data of the machine, that are reported in the identification plate, make sure that itself is compatible with the existing electrical feeding..

12.0 EMERGENCY DEVICE LOCATION

The pressure of the emergency button of red colour unprimes all the organs arranged to the movement .

To restart the ordinary work cycle it is sufficient to lift the emergency button with a counter-clockwise movement.

In the drawing the emergency button present on the machine is evidenced by "E"

13.0 CONNECTION DATA AND CONSUMPTIONS

The machines to be able to work need electrical power (see chart).
Besides the necessary loads for the plant, the user will have to take into account possible accessory rights of use.

- Feeding voltage	220-380 V/50-60 Hz	
- Power	Auger	0,22 kW
	Mixer	0,22 kW
	Pump	0,75 kW
	Agitator	0,18 kW
	Transformer	0,05 kW
- Overall Power	max. 1,50 kW	
- Pipe Diameter	"in"	clamp Ø2"
	"out"	clamp Ø2"

ATTENTION!

The interventions on the electrical part even of light entity require the work of skilled staff.
The whole electrical plant of the machine is carried out by the building Company according to the regulations EN60204-1.
The electrical safety of this machine is assured only when itself is correctly linked to an efficient grounding plant as foreseen by the electrical safety regulations in force.
It is necessary to verify this fundamental safety requirement, and in case of doubt, ask for the accurate check of the plant by skilled staff.
The builder constructor can not be considered responsible for possible damage caused by disturbed feeding lines or bad grounding connections.
-Verify that the capacity intensity estimated to the link clamps of the general switch is compatible with its interruption power.
-Check that the frequency values and the feeding voltage (see applied plate)correspond to the values of the feeding network.

14.0 PRELIMINARY OPERATIONS

PRELIMINARY REMARK: ALL THE MACHINES ARE TESTED BEFORE SHIPMENT.

-Verify that the emergency stop button is unblocked.

-Verify that the link between the machine and the outer arrivals is correct according to the regulations in force.

-The electric cable will have to stretch along the whole run without any windings..

-Carry out a brief overall check of the machine.

-Verify that there are no voltage changes on the main network.

ATTENTION!

In case of voltage changes or interferences on the feeding line is absolutely necessary to install, at user's charge, a voltage stabilizer.

-Frequently verify that all the emergency devices are perfectly working.

-Rotate the general switch put on the rear of the machine.

-When the machine is set in motion verify the correct engine rotation. If this does not occur invert the phases.

-BLENDER ELETRIC MOTOR

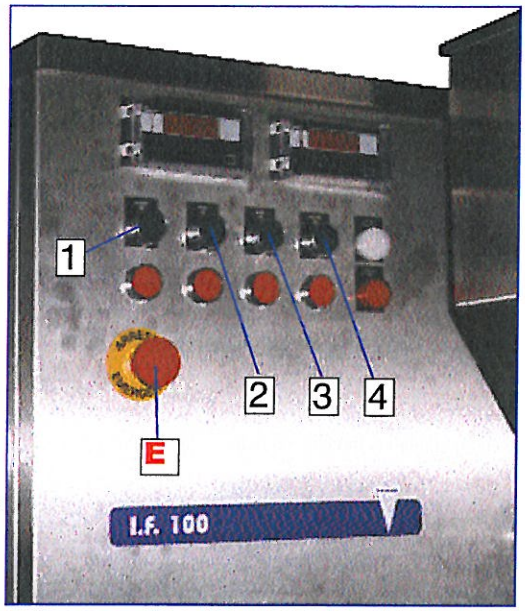
Press the lighting button pos.1 to start the engine. Verify that the rotation sense of the mixer is counter-clockwise.

-ROTOR ELETRIC MOTOR

Press the lighting button pos.2 to start the engine. Verify, by removing the front pump cover, that the rotation sense is clockwise.

-AUGER ELETRIC MOTOR

Press the lighting button pos.3 to start the engine. Verify, by lifting the main cover, that the rotation sense of the Archimedean screw is clockwise.



-HOPPER AGITATOR ELETRIC MOTOR

Press the lighting button pos.4 to start the engines. Verify, by lifting the main cover, that the rotation sense of the hopper is clockwise.

ATTENTION!

As the lamella pump needs to be lubricated by the ice cream and/or water during the functioning, it is necessary, that during the verification of the rotation sense, some water instilled directly into the secondary hopper.

-At started engines, verify the correct functioning of the emergency stop button " **E**".

15.0 FUNCTIONING

The ingredients are loaded manually by the operator inside the main hopper after removing the closing cover.

ATTENTION!
The protection grid has never to be removed, but for the fact to carry out maintenance operations by ensuring that the machine is off and the general switch is on the position "0".

-The slow agitator situated in the upper part of the main hopper has the aim to keep the ingredients in continuous motion, then they are instilled in the secondary hopper through the Auger situated at the bottom of the hopper.
-The feeding capacity of the ingredients is variable continuously by changing the speed of the Auger, that is adjustable manually through a hand-wheel situated on the right side of the machine itself. The Auger is available in two versions according to the type of ingredients to feed.
-From the secondary hopper the ingredients are fed by fall towards the inlet opening of the lamella pump situated at the bottom of the secondary hopper, then they flow in the cavities creating between two contiguous lamellae thanks to the particular profile of the eccentric guide.
-During the rotation the ingredients come into contact with the ice cream through the outlet mouth situated at the bottom of the stator. This way the ingredients are instilled into the ice cream flow.
-The rotation speed of the rotor can be regulated through the hand-wheel situated on the right side of the machine linked to the motor- reducer.
-The mixture so obtained is conveyed to the horizontal mixer.
-Aim of the mixer is to mix the ice cream and the ingredients so as to get an even and homogeneous product.

16.0MACHINE START

ATTENTION!
The machine usage is permitted only and exclusively to skilled and authorized staff. Every and any violation or change of the machine not previously authorized by the builder constructor relieve this last from damage derived or referable to above mentioned facts.
The removal or violation of the safety devices involves a violation of the **EUROPEAN SAFETY REGULATIONS**.
We recommend you the usage of original spare parts. Our machines are not arranged to accept unoriginal spare parts.
Check that during the operative manoeuvres no danger conditions take place, stop immediately the machine in the case you notice some functional irregularities, and ask the service centre of the authorized dealer or the builder constructor himself.

To get an optimum functioning of the machine, the candied fruit and the ingredients in general to instil into the ice cream must be dripped carefully and must be made the least sticky as possible.
The good functioning of the machine is subordinate to the features of the product used.

-The machine must be unlinked until the ice cream inlet and outlet pipes are not linked to the lamella pump body.

-Both the Auger and the slow agitator and the lamellae of the pump are dangerous. Consequently, the grid of the main hopper must never be removed when the machine is in voltage.

-If the ingredients block the rotation of the slow agitator and/or of the Auger, the removal of foreign bodies must take place only at machine off and the general switch pulled down. Metal, plastic ,etc. objects can damage the machine seriously.

-The lamella pump must never idle

Before starting the work cycles we advise the operator to carry out the following operations:

-Carry out the daily maintenance operations.

-Wash and sterilize the machine carefully.

-Make sure that the ice cream inlet and outlet pipes from the IF 100 machine are correctly linked to the freezer and to the filling machine.

-Make sure that the feeding cable to the electric network is correctly linked.

-Make sure that all the protections are in safety position (protection grid of the main hopper, cover of the secondary hopper).

-Make sure that all the panels of the machine are solidly fixed to the frame.

-Activate the switch of general feeding situated above the machine.

17.0 CONTROL BOARD

The machine is extremely easy to control, here down there are the specifications of the control board with relative picture.

1)- MIXER START PUSHBUTTON.

2)- MIXER STOP PUSH BUTTON.

3)- LAMELLA PUMP START PUSH BUTTON.

4)- DISPLAY WITH THE NUMBER OF REVOLUTIONS PER MINUTE OF THE LAMELLA PUMP.

5)-AUGER PUSH BUTTON.

6)- DISPLAY WITH THE NUMBER OF REVOLUTIONS PER MINUTE OF THE AUGER.

7)- MIXER START PUSH BUTTON.

8)- NETWORK WARNING LIGHT.

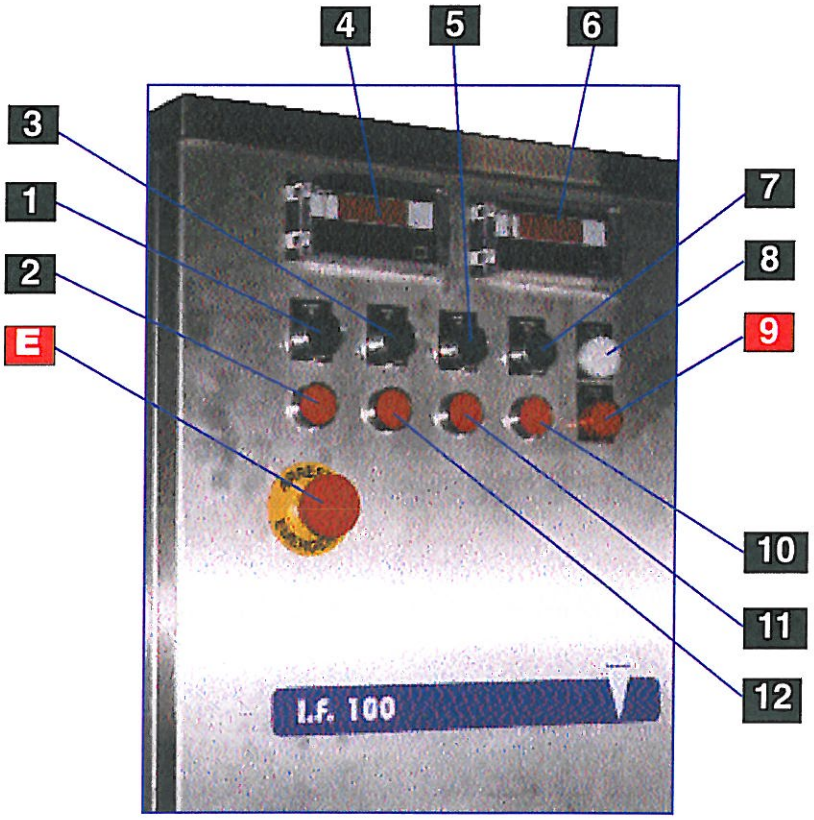
9)- EMERGENCY WARNING LIGHT.

10)- MIXER STOP PUSH BUTTON.

11)- AUGER STOP PUSH BUTTON.

12)- LAMELLA PUMP STOP PUSH BUTTON.

E) - EMERGENCY STOP PUSH BUTTON.



18.0 CYCLE BEGINNING

-Give voltage to the machine by rotating the general switch in position "**1**" situated on the rear of the machine.

-Start the sending of the ice cream from the freezer. To reduce the scraps to a minimum, before starting the engines of the machine, wait for the consistency of the ice cream coming out of the mixer pipe to be that desired.

-Start the mixer by pressing the PUSH button **1** (see photo)

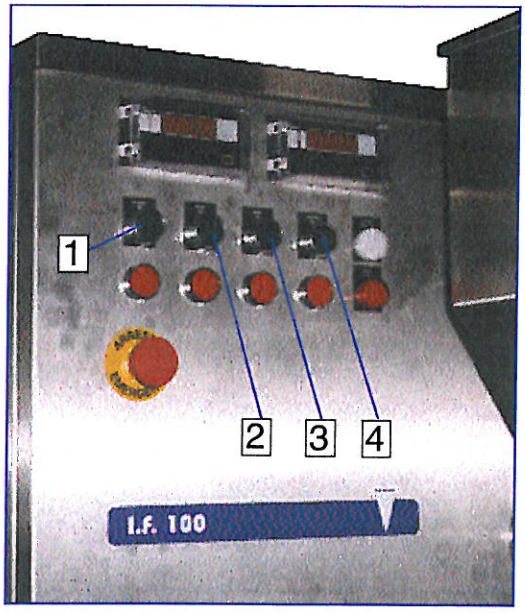
-Start the lamella pump and the Auger by pressing respectively the PUSH buttons **2** and **3** (see photo)

-Feed the ingredients into the main hopper.

ATTENTION!
Never remove the protection grid on the hopper!

-Start the agitator in the hopper by pressing the PUSH button **4** (see photo)
-The ingredients are situated in the main hopper.
The Auger brings them to the lamella pump.
Then, the product obtained with the ice cream coming from the freezer , passes through the mixer that , after having been suitably mixed, is sent to the filling machine.

NOTE!
The operator must instil the ingredients inside the hopper continuously.



19.0 INGREDIENT AND MIXTURE REGULATION

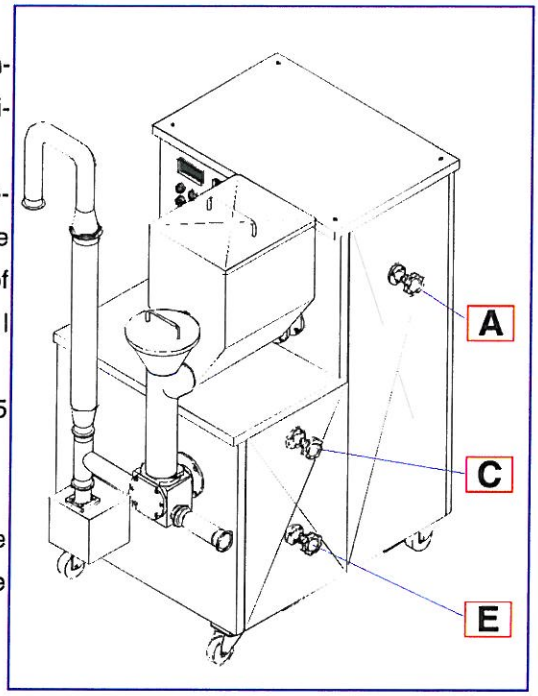
To regulate the quantity of ingredients instilled into the ice cream, you can use:

1)- The hand-wheel **A** (see photo 1), to regulate the rotation speed of the Auger, clockwise to increase and counter-clockwise to decrease.

The number of revolutions is viewed on the lighting display **B** situated on the front of the machine(see photo 2).

It is clear that by increasing the number of revolutions the feeding of ingredients will increase proportionally, and by decreasing the number of revolutions the feeding of ingredients will decrease proportionally.

The number of revolutions ranges from 5 to 25 per minute.



2)- The hand-wheel **C** (see photo 1), to regulate the lamella pump speed, clockwise to increase and
counter-clockwise to decrease.

The number of revolutions is viewed on the lighting display **D** situated on the front of the machine (see photo 2). The number of revolutions ranges from 8 to 40 per minute.

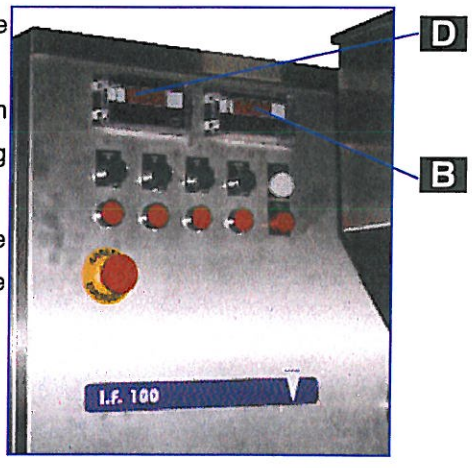
NOTE!
The two controls are independent one from the other, so you must operate onto both to get the right regulations.

The ingredients are normally present in the ice cream, in percentage ranging from 5% to 10%.

To regulate the mixture ingredients- ice cream, you can use the hand-wheel **E** (see photo 1).

By keeping the number of the revolutions at the minimum you will have a more uniform mixture with ingredients of big dimensions.

By increasing the number of the revolutions by rotating the hand-wheel clockwise you will get a more uniform mixture with ingredients of small dimensions.



20.0 INGREDIENT FEATURES

The ingredients to avoid being smashed, should have a with maximum diameter of 15 mm.
This sense, a typical product such as entire strawberries will have to be calibrated within the above described dimensions.
The machine is planned for every kind of solid and/or highly viscous material.
Liquid ingredients or little viscous (for example: jams, orange juices with entire pieces of fruit, etc.) should not be used.
These cases we recommend you to feed the solid part separately by using the IF 100, and the liquid part with a volumetric dosing machine for liquids before the line mixer.

The machine is supplied with two Auger as equipment:
-Auger, pitch 35 mm for high capacities.
-Auger, pitch 20 mm for low capacities.

NOTE!
-Viscous ingredients, sensible to humidity or with tendency to aggregate are not suitable to dosing.

-Some ingredients such as raisin must be washed and drained before dosing.

21.0 MACHINE TURNING OFF

After the production cycle has been completed, provide for the turning off of the machine as follows:

1) Turn off the agitator.
2) Turn off the Auger.
3) Turn off the lamella pump.
4) Press the emergency push button.
5) Rotate the general switch onto "0".
6) Start the cleaning.

22.0 CLEANING AND WASHING

ATTENTION!

Before cleaning the machine make sure that the general switch is down and that the switch at the machine rim is on the position "**0**".

The outer washing of the machine foresees the following phases:

1)- Pre-washing with warm water (50°)

2)- Washing with alkaline foaming or gel detergent at high emulsifying power of the greases. The concentration varies from 2% to 10% on the ground of the present dirt and of the hardness of the water used.

3)- Rinse with water after about 10 minutes carefully, by removing the saponified and emulsified dirt.

4)- Wash with acid, at low viscosity containing a mixture of wet and emulsifying agents. The concentration varies from 2% to 3%.

The minimum contact time recommended is of 15-20 minutes.

5)- Rinse with water.

6)- Wash by using a suitable disinfectant dilute in water.

The concentration varies between 1-1,2%. The minimum contact time recommended is 15-20 minutes.

7)- Rinse with water.

RECOMMENDED PRODUCTS:

Detergent: SU928/ SU616 (Diversey Lever) – P3/topa c tiv200 (60°C) (Henkel-Ecolab)
P3-topax 52 (50/60°) (Henkel-Ecolab)
Disinfectant: P3-topax 99 (60°) (Henkel-Ecolab)

ATTENTION!

Do not use any water springs at high pressure.

23.0 PLANNED MAINTENANCE

ATTENTION!
Before starting any maintenance operation make sure that the general switch above is down and that the switch is on the position "0".
The machine maintenance will have to be carried out by "SKILLED" person who is properly familiar and the specific technical preparation suitable to satisfy the minimum maintenance requisites generally required.

-Daily Maintenance

1-Rinse the machine with water abundantly and/or washing solutions before starting the production cycle.
2-Wash the machine at the end of the production cycle, by proceeding in the following way:
a)-Disconnect the machine of the filling line.
b)-Pour washing solution (in small quantities) into the primary hopper, this way the agitator and the Auger wash.
Necessary material: water, detergent, disinfectant.

-Monthly Maintenance

1-Check the oil level in the reducers (IP Mellania oil 320)

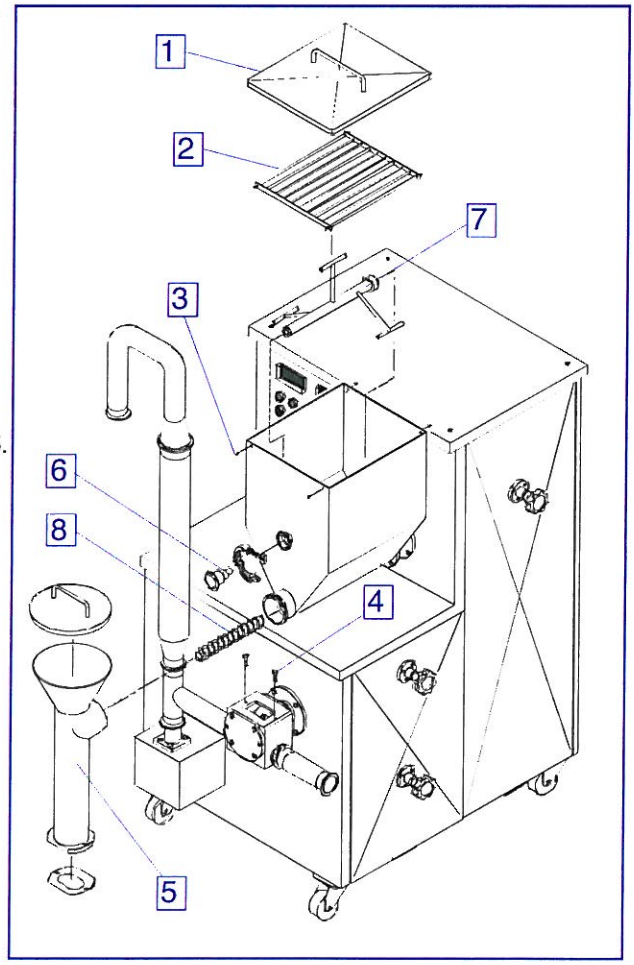
2-Wash to disinfect the various components and the hoppers, horizontal and vertical, by reassembling the whole by lubricating the gaskets properly by proceeding in the following way (see drawing)

a)- Lift the cover pos.1,remove the protection grid pos.2 by unscrewing the four screws pos.3.

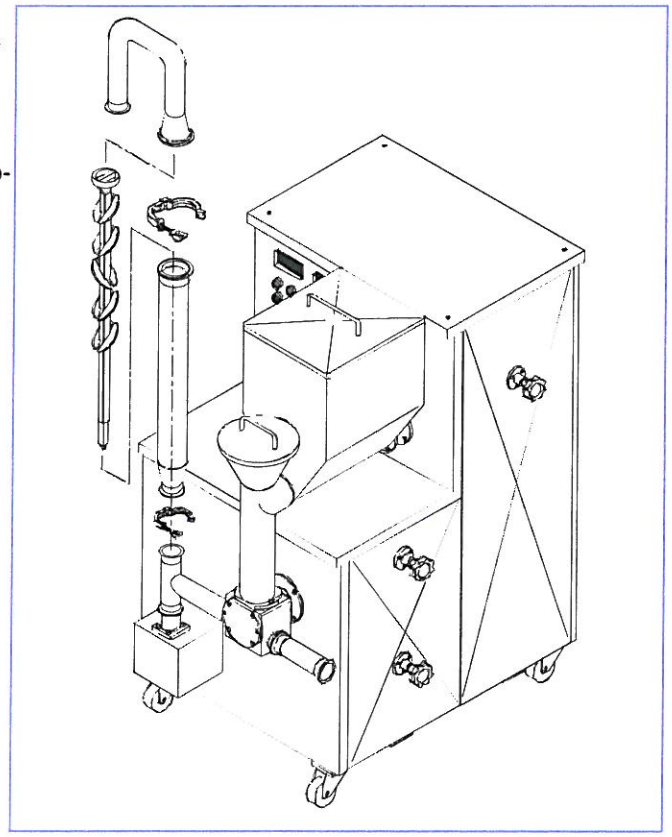
b)- Unscrew the two screws pos.4.,remove the vertical hopper pos.5.

c)- Unthread the pin pos.6 and remove the agitator pos.7.

d)- disassemble the Auger pos.8.



3-Wash to disinfect the various components and the vertical agitator, by dismounting and reassembling the whole (by lubricating the gaskets properly)and by proceeding in the way represented in the drawing below.

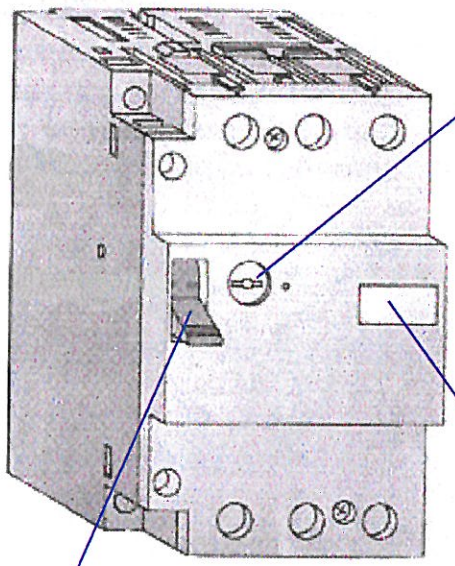


24.0 MACHINE WASHING PHASES

Washing Phases	Recommended Products	%in water	°C	Minutes	Notes
-Pre- washing	Water	100	50	5	to lose
-Detergent washing	SU157 (Diverse lever)				
	P3-N 421 (Henkel Ecolab)	1.2-1.6	65-70	15	in recirculation
-Rinse	Water	100	20	5	to lose
-Washing	SU475 (Diverse lever)				
	P3-PE4 Spezial A (Henkel Ecolab)	0.5-1	60-70	10	in recirculation
-Rinse	Water	100	20	5	to lose
-Disinfectant washing	SU330 (Diverse lever				
	P3-dix forte (Henkel Ecolab)	1-1.2	20	10	in recirculation
-Rinse	Water	100	20	10	to lose

25.0 ELETRIC MOTOR POWER AND MAGNETO-THERMIC REGULATION

	Abbreviation	Power	Regulation	Magneto-thermics
Agitator eletric motor	Q4	Kw 0,18	1A	1,0-1,6
Auger eletric motor	Q2	Kw 0,22	1A	1,0-1,6
Lamella pump engine	Q3	Kw 0,75	1,2A	1,6-2,5
Mixer eletric motor	Q1	Kw 0,22	1A	1.0-1.6



Regulator to increase or d. ecrease the set up intervention.

Switch 0/1 in position 0 the magneto-thermic is disenabled. In position 1 the magneto-thermic is enabled for the eletric motor functioning.

Identification abbreviation.

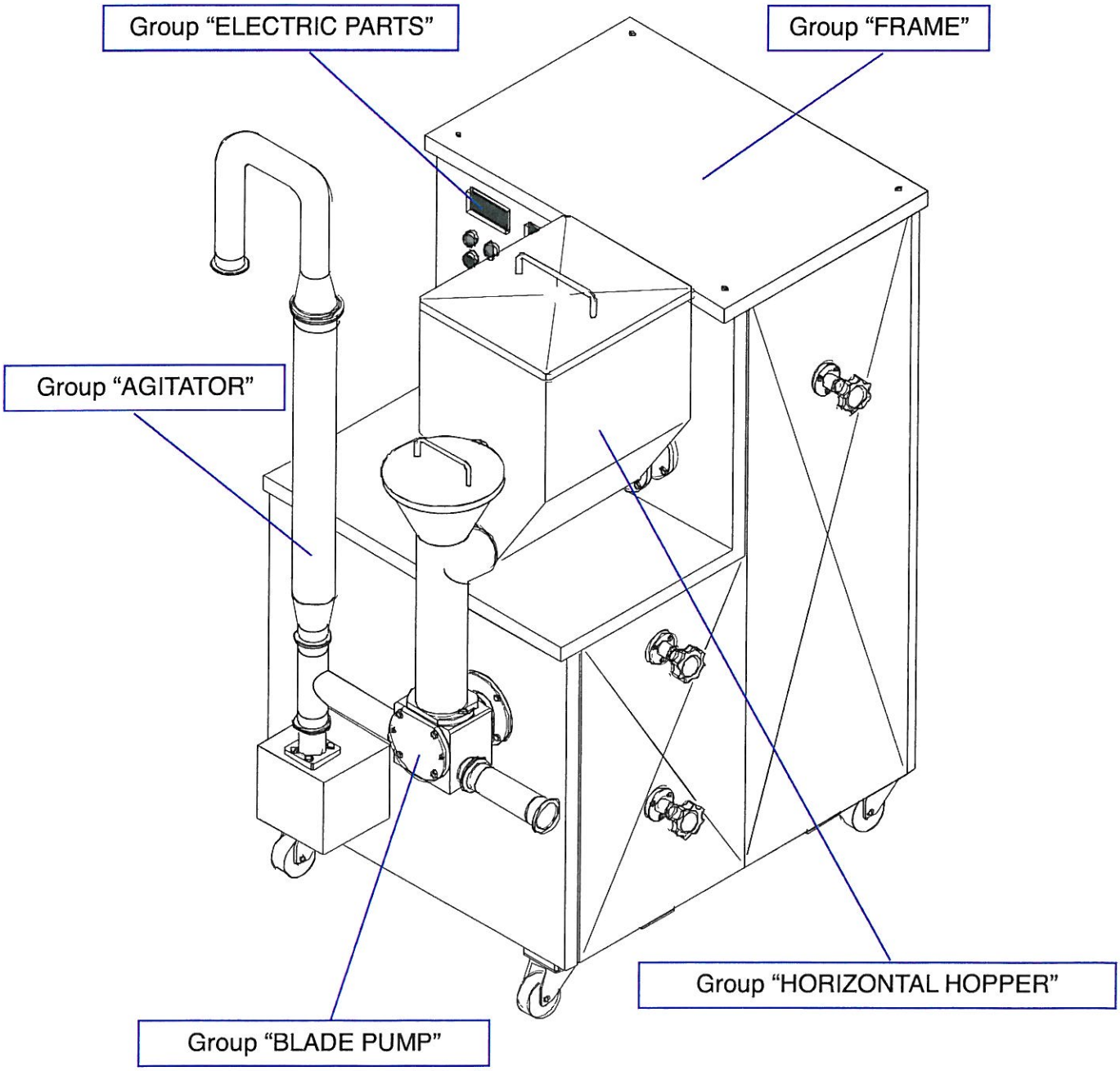
26.0 FAULTY, CAUSES AND REMEDIES

Before asking the technical service, proceed to carry out the controls here below reported.

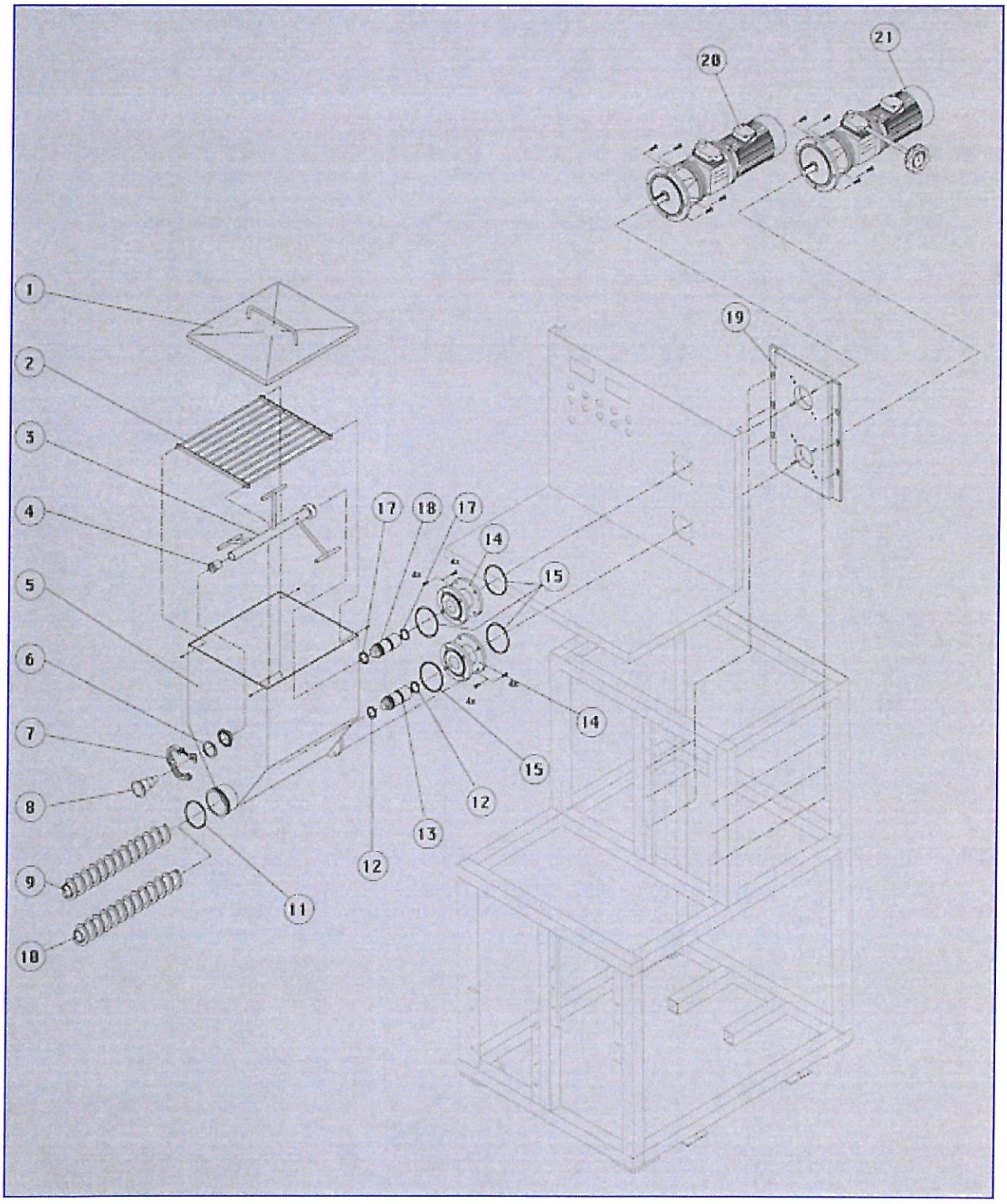
FAULTY	CAUSE	REMEDY
Voltage presence warning light off	-The plug is not inserted	-Insert the plug
	-Electrical power lacks in the general switch .	-Restore electrical feeding
	- Burnt electric pilot lamp	-Replace the electric pilot lamp
-The machine does not start	-Damaged emergency push button	-Replace it
	-The emergency push button has not been slackened	-Restore the emergency push button
-The mixer eletric motor does not start	-The eletric motor thermal relay is blocked	-Rearm the thermal relay inside the electric board
The lamella pump eletric motor does not start .	-The eletric motor thermal relay is blocked	-Rearm the thermal relay inside the electric board
-The Auger eletric motor does not start		-Rearm the thermal relay inside the electric board
-The agitator eletric motor does not start	-The eletric motor thermal relay is blocked	-Rearm the thermal relay inside the electric board.
	-The eletric motor thermal relay is blocked	

27.0 SPARE PARTS

The machine is divided into five groups. The lay-out drawing reports the types. In the following pages the different groups are described with the respective descriptions.



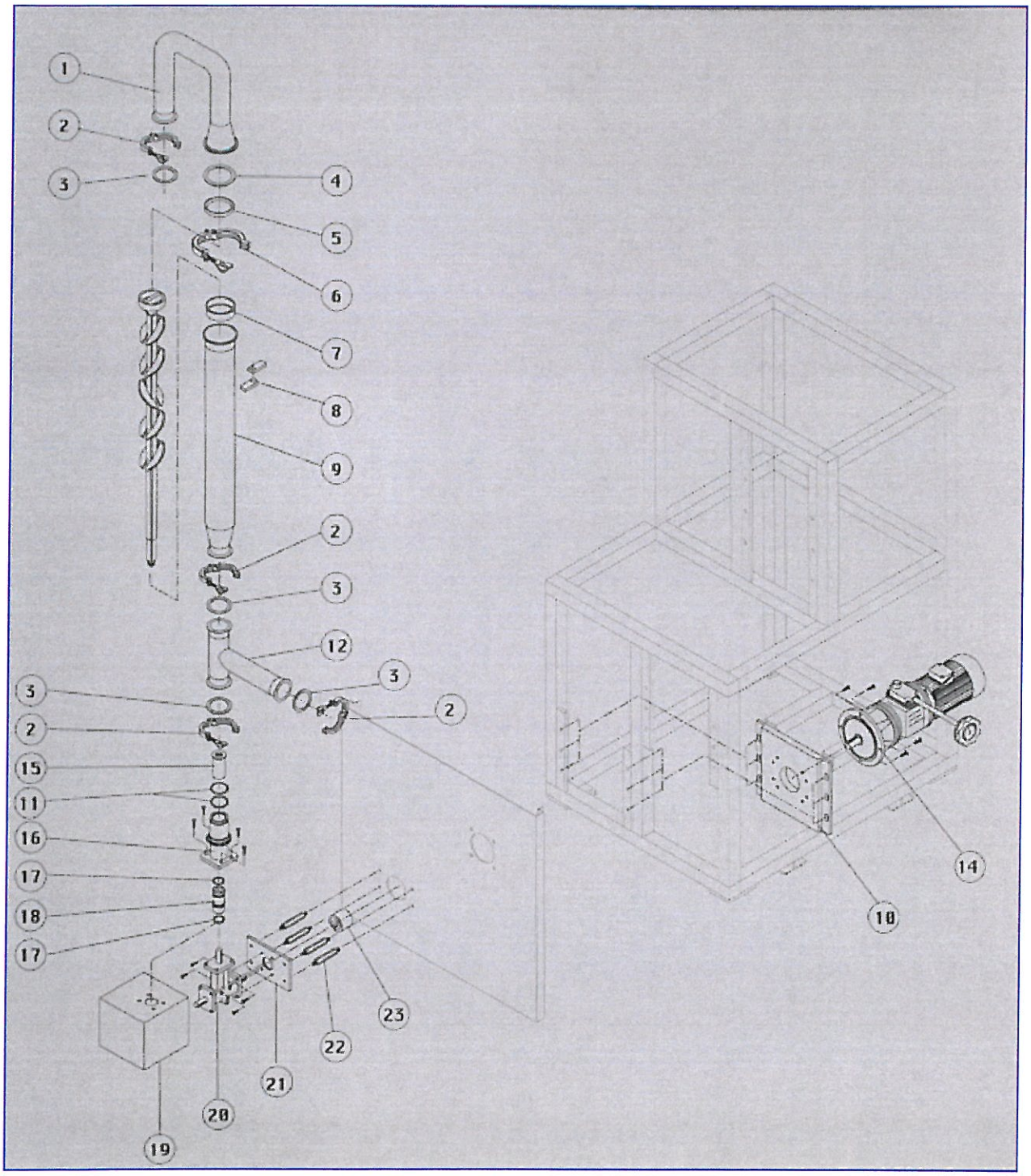
27.1 EXPLODED VIEW GROUP "HORIZONTAL



27.1.1 LEGEND GROUP "HORIZONTAL HOPPER"

POS.	CODE	NAME	QUANTITY
1	IF100TG002	Horizontal Hopper Cover	1
2	IF100TG003	Grid for Horizontal Hopper	1
3	IF100TG004	Horizontal Hopper Agitator	1
4	IF100TG0	Reduction Pin for Agitator Rotation	1
5	IF100TG011	Horizontal Hopper	1
6	GU012	Gasket 1" 1/2	1
7	CL012	Clamp 1" 1/2	1
8	IF100TG01	Pin for Agitator Rotation	1
9	IF100TG009	Auger Pitch 20	1
10	IF100TG009A	Auger Pitch 35	1
11	OR016	O Ring OR	1
12	OR017	O Ring OR	2
13	IF100TG008	Clutch Auger for Horizontal Hopper	1
14	IF100TG005	Sleeve Support Horizontal Hopper	1
15	OR018	O Ring OR	4
17	OR019	O Ring OR	2
18	IF100PM001	Clutch Shaft for Pump Body	1
19	IF100TG011	Support Plate	1
20	MT012	Motor SpeddReducer	1
21	MT013	Motor Speed Variator Reducer	
	1		

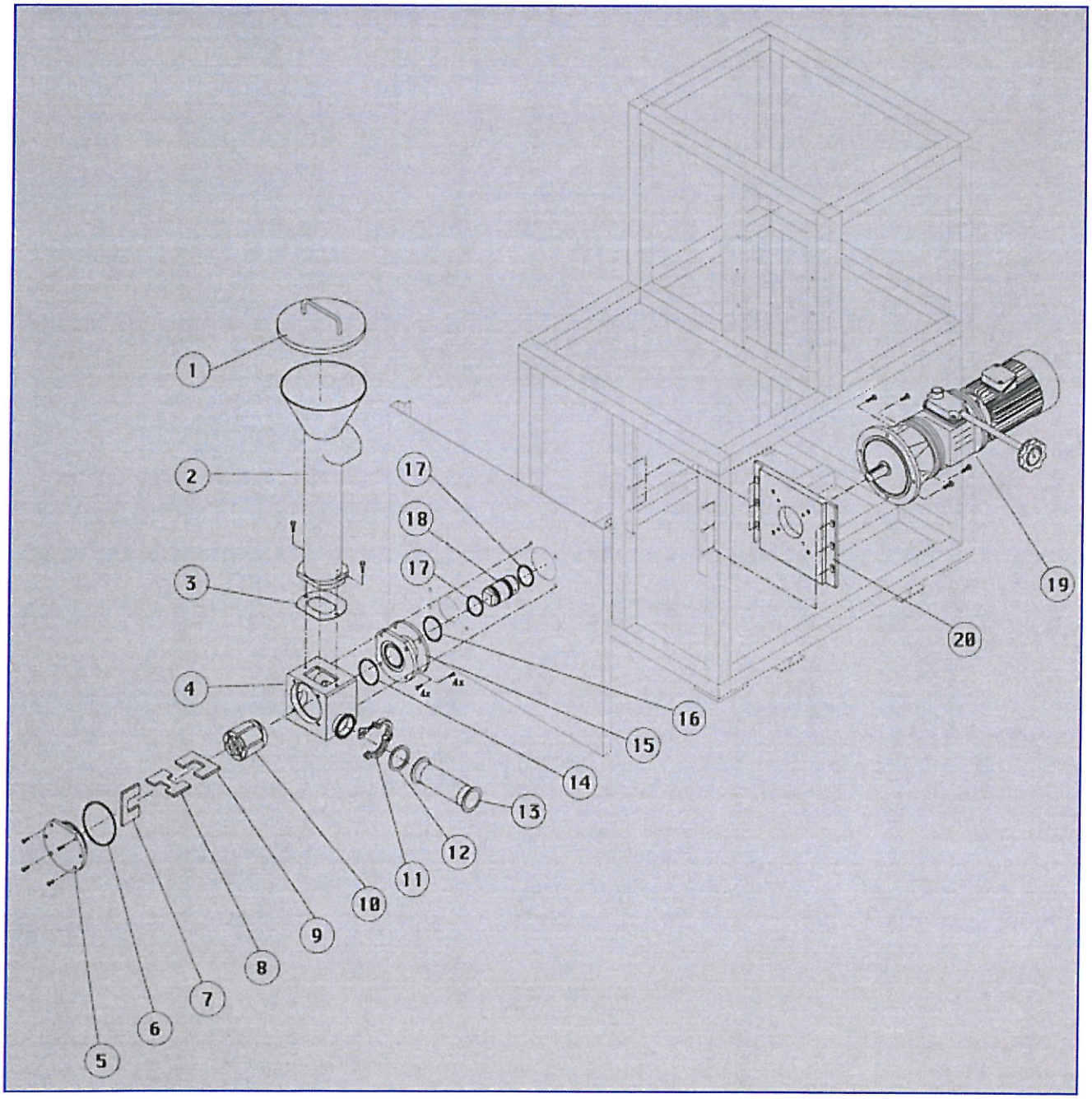
27.2 EXPLODED VIEW GROUP "VARIATOR"



27.2.1 LEGEND GROUP "VARIATOR"

POSITION	CODE	NAME	QUANTITY
1	IF100AG015	Agitator Pipe Outlet	1
2	CL010	Clamp 2"	4
3	GU010	Gasket 2"	4
4	GU011	Gasket 3"	1
5	IF100AG016	Busching Agitator Pipe Outlet	1
6	CL011	Clamp 3"	1
7	IF100AG002	Busching Vertical Agitator	1
8	IF100TV002	Fixing Flats	1
9	IF100AG010	Agitator Housing Pipe	1
10	IF100AG007	Agitator Plate	1
11	OR	O Ring OR	2
12	IF100AG008	Agitator Pump Pipe Fitting	1
14	MA010	Agitator Motor Speed Variator	1
15	IF100AG004	Agitator Centering Busching	1
16	IF100AG012	Vertical Agitator Support	1
17	OR	O Ring OR	2
18	IF100AG006	Vertical Agitator Clutch	1
19	IF100AG003	Angular Agitator Stainless Stell Cover	1
20	RA010	Angular Returning	1
21	IF100AG009	Angular Returning Support Flat	1
22	IF100AG011	Angular Returning Fixing Bolts	4
23	IF100AG005	Vertical Agitator Joint	1

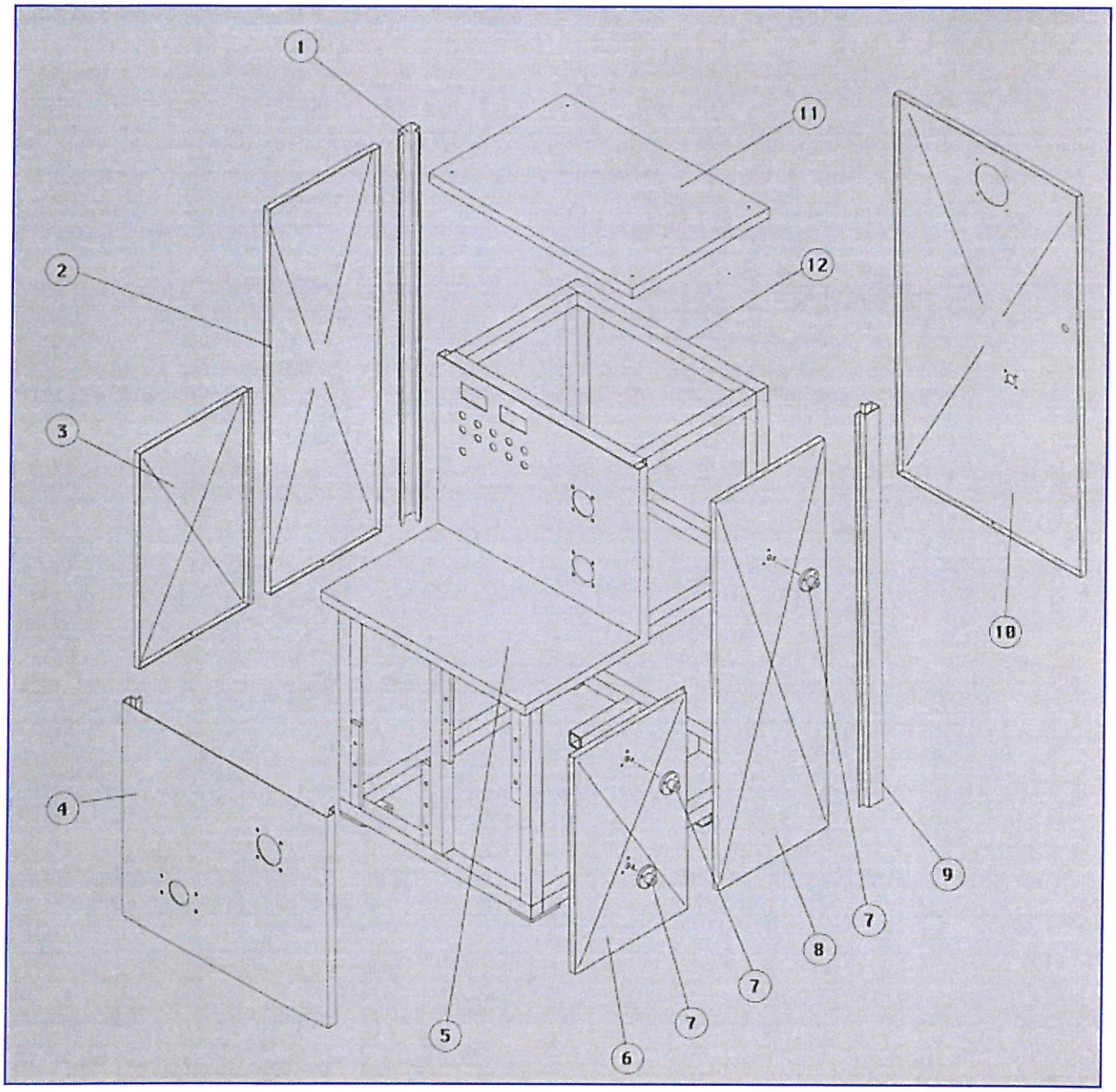
27.3 EXPLODED VIEW GROUP " BLADE PUMP"



27.3.1 LEGENG GROUP "BLADE PUMP"

POSITION	CODE	NAME	QUANTITY
1	IF100TV003	Vertical Hopper Cover	1
2	IF100TV001	Vertical Hopper	1
3	IF100TV005	Vertical Hopper Gasket	1
4	IF100PM007	Pump Body	1
5	IF100PM006	Pump Body Cover	1
6	OR	O Ring OR	1
7	IF100PM003	Right Lateral Lamella	1
8	IF100PM002	Central Lamella	1
9	IF100PM004	Left Lateral Lamella	1
10	IF100PM009	Pump Body Rotor	1
11	CL010	Clamp 2"	1
12	GU010	Gasket 2"	1
13	IF100PM010	Pump Connection Pipe	1
14	OR	O Ring OR	1
15	IF100PM005	Pump Body Support Sleeve	1
16	OR	O Ring OR	1
17	OR	O Ring OR	1
18	IF100PM001	Clutch Shaft for Pump Body	1
19	MT011	Motor SpeedVariatorReducer	1
20	IF100PM008	Support Plate	1

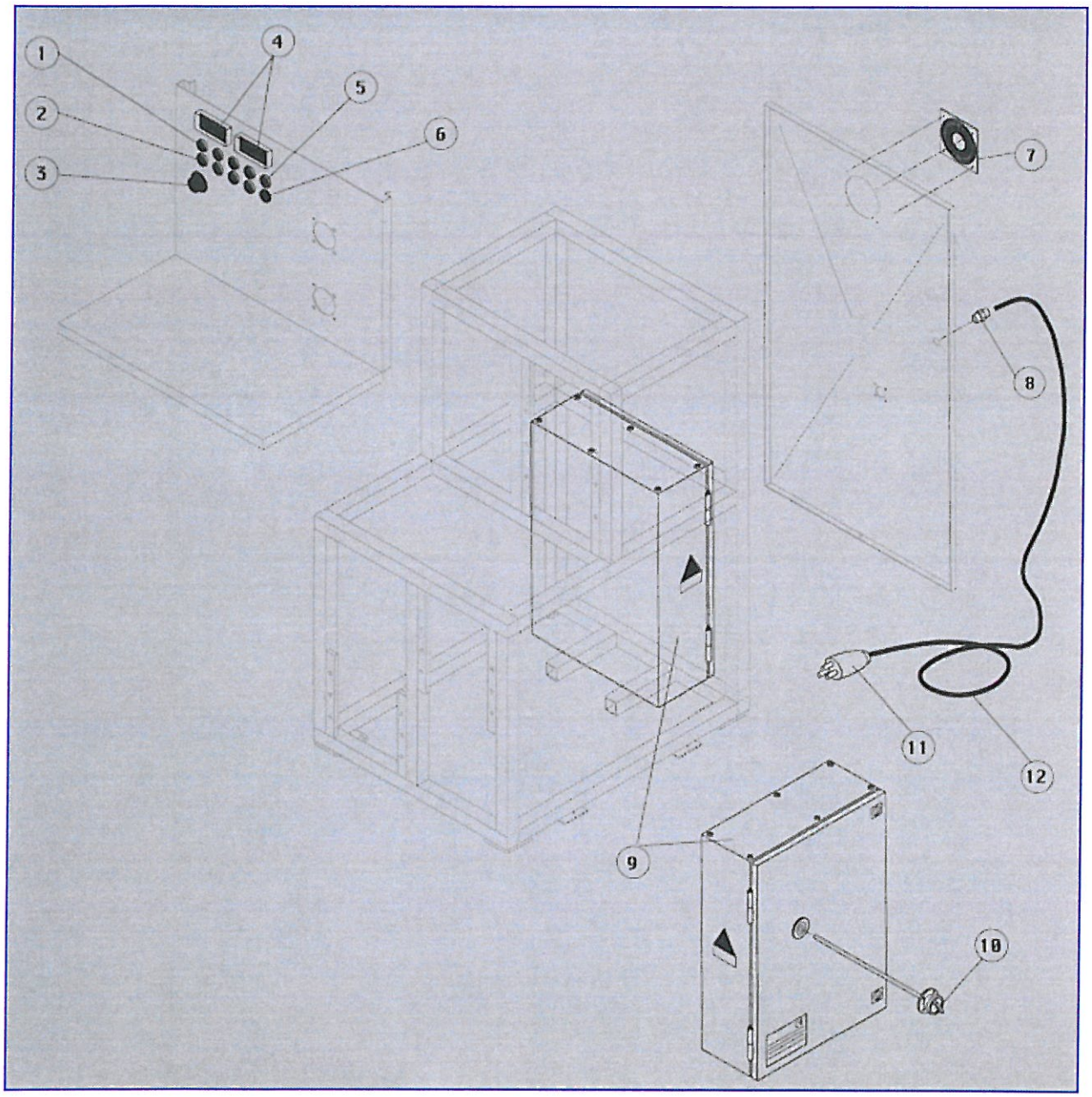
27.4 EXPLODED VIEW GROUP "FRAME"



27.4.1 LEGEND GROUP "FRAME"

POSITION	CODE	NAME	QUANTITY
1	IF100TE012	Left Angle Structural Shape	1
2	IF100TE002	Rear Left Lateral Panel	1
3	IF100TE008	Inner Left Lateral Panel	1
4	IF100TE007	Lower Front Panel	1
5	IF100TE006	Upper Front Panel	1
6	IF100TE009	Inner Right Lateral Panel	1
7	IF100TE010	Hand-Wheel Flange	3
8	IF100TE003	Rear Right Lateral Panel	1
9	IF100TE011	Right Angle Structural Shape	1
10	IF100TE004	Rear Panel	1
11	IF100TE005	Rear Cover	1
12	IF100TE001	Frame	1

27.5 EXPLODED VIEW GROUP " ELECTRIC



27.5.1 LEGEND GROUP " ELECTRIC PARTS"

POSITION	CODE	NAME	QUANTITY
1	EL0010	Green Start Push Button	4
2	EL0011	Red Stop Push Button	4
3	EL0012	Emergency Push Button	1
4	EL0013	Display	2
5	EL0014	Light Blue Network Warning Light	1
6	EL0015	Red Alarm Warning Light	1
7	EL0016	Fan Protection Grid	1
8	EL0017	Passecable	1
9	EL0018	Electric Board	1
10	EL0019	Switch-0/1	1
11	EL0020	Plug	1
12	EL0019	Electric Cable	1

28 DISCARTING

When you decide not to use the machine any more, we recommend you to make it inactive by removing the feeding cable (after having taken off the electric feeding cable), then remove all the electric engines and make all those parts capable of causing danger source harmless such as chains, belts, electric cables and crankcases. Evaluate the classification of the goods according to the drain degree on the grounds of the national instructions in force.

-LUBRICATING OILS IN THE REDUCERS

- ALL THE CHEMICAL PRODUCTS

are to be considered as special rubbish.
So it is necessary to remove them and divide them into homogeneous parts, then drain them according to the rules in force.
All the parts of the machine the parts in plastic material excepted, can be discarded as scrap-iron and place them in the collection centres arranged.

IMPORTANT!

THIS MACHINE, IN CASE OF DESTRUCTION OR OF MAINTENANCE INTERVENTIONS CARRIED OUT IN AN UNCOMFORMABLE WAY, COULD BE DANGEROUS TO THE ENVIRONMENT.
THEREFORE WE RECOMMEND YOU TO PROVIDE FOR THE DRAIN BY FOLLOWING THE NATIONAL INSTRUCTIONS IN FORCE AND TO TRUST THE MAINTENANCE INTERVENTIONS EXCLUSIVELY TO AUTHORIZED MAINTENANCE STAFF TECNOFREEZE

29.0-GUARANTEE TERMS AND CONDITIONS

-This machine is guaranteed for a twelve months' time, proved by the invoice date.
-The paper issued by the builder constructor, must be kept along with the present instruction manual, on whose cover a label reports the identification data of the machine.
Both will have to be shown, in case of intervention, to the technician staff.
-For guarantee we mean the replacement of the parts composing the equipment that appear faulty originally for manufacture defects.
-The hours spent and the possible journey, board and lodging charges will be charged to the customer.
-All the parts that should result faulty owing to carelessness or usage carelessness are not covered by guarantee (nonobservance of the instructions for the machine working), of wrong maintenance performed by unskilled staff, by transport damage, that is circumstances that, however, can not be ascribed to manufacture defects of the machine.

-The interventions concerning the connection to feeding plants are also excluded from the guarantee services, the machine cleaning as well as the maintenances reported in the present instruction manual.

-The guarantee is also excluded in all the cases of improper machine usage.

DECLARATION CE OF CONFORMITY

The Company **TECNOFREEZE** S.r.l.
Strada Spinedi 22/24
MIRADOLO TERME - PAVIA - ITALIA -
declare under their sole responsibility that the machine

FRUIT FEEDER mod."IF100"

Serial Number

01101-08

YEAR of construction: 2005

is in compliance with the prescriptions
- of 8/37/CE directive (Machinery Directive) and D.P.R. No.459 of 24/7/1996 (Italian implementation of the Machinery Directive)

- of 73/23 EEC directive modified by 93/68/EEC directive (Low Voltage Directive) and by No.791 of 18/01/0977 law (Italian implementation of High Voltage Directive)

- of 89/336 EEC directive, modified by 91/263/EEC, 93/68 EEC and 93/97/EEC directives (Electromagnetic Compatibility Directive) and Legislative Decree 615 of 12/11/1996 (Italian implementation of Electromagnetic Compatibility Directive)

The Workplace Health and Safety Act 1995
The Workplace Health and Safety (Miscellaneous) Regulation 1995
The Workplace Health and Safety Regulation 1997
The Code of Practice for Plant

Australian Standard AS 3000 (electrical installation)
Australian Standard AS 1576 (Scaffolding and temporary structures)

The machine is also in compliance with CEI EN 60204-1 (April 1998), UNI EN 292 (November 1992) standards.

Miradolo Terme li.....

TECNOFREEZE S.r.l.
Technician Responsible
Angelo Ambrosetti