

# **CATALOGUE OF SPARE PARTS**

## **INSTRUCTIONS MANUAL**



### **MANUAL DOUGH SHEETERS**

*We are pleased to have you among our customers, sure that the purchased machine meets your needs and expectations.*

*The dough sheeting machine to which this manual refers is the result that has made the Manufacturer famous all over the world for its reliability and quality, using the most advanced mechanical technologies to make machines reliable and safe for the users.*

*All our machines comply with the international standards concerning safety of operation protecting the operators, as well as the hygienicity of the construction materials destined to enter in contact with food products.*

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The Manufacturer aiming at continuous improvement, reserves the right to perform eventual modifications to mechanical parts, details and accessories at any time.

## THREE PHASE DOUGH SHEETER

### GENERAL REMARKS:

The accidents occurring at work do not happen casually: each accident is either the last step of a series of wrong actions or of a not safe condition, or of both circumstances.

Control, management, maintenance and safety systems are enough to assure the safety of the operators, the achievement of a good product under good hygienic conditions safeguarding and keeping the plant efficient.

**Therefore, follow the instructions given in this manual and do not try to tamper or modify the mechanical or electronic safety systems in any way.**

#### General operator behavior regulations concerning safety

Here below there are some general observations to keep in mind.

1. The access to the working areas has to be limited to the persons in charge of the works.
2. The personnel have to wear proper cloths for the operations to be performed in order to safeguard the safety of the personnel and hygiene, and avoid damages to the machine; avoid wearing large cloths, loose hair, watches, rings, chains or other things that could get entangled in moving parts of the machine.
3. Do not charge the performance of maintenance or repairing operations on the machine to persons working under the influence of alcohols, drugs, sedatives or visibly tired persons.
4. Do not take any initiative performing operations or interventions not foreseen by your specific responsibilities or not contained in this manual: avoid using tools that are not suitable for the operations to be performed.
5. Start the machine only after having well understood its operation.
6. Make sure that fixed and movable protections are in correct position during operation: the use of the machines without protections can cause severe damages to persons.
7. Before any intervention on internal and external devices of the panel, disconnect power supply by using the main switch.
8. Keep all access paths and working areas around the machine clean, dry, and free; verify that close to the plant the spaces for the passage of the personnel and the eventual handling of other transport machines are suitable.
9. Avoid leaving any object on the machine.
10. Provide a proper lighting of the working area as foreseen by the regulations.
11. At the end of each working day or, in any case, of each working cycle check that all switches, limit switches, and safety devices are efficient. Switch off the machine using the main switch and make sure to disconnect power supply to the main panel.
12. Carefully follow all safety provisions foreseen by the regulations in force.
13. The inobservance of the provisions may cause anomalies or malfunctioning of the machine and the interruption of the warranty. Moreover, the manufacturing company declines any liability in case of damages to persons and things due to improper use of the machine.

**The Manufacturer is not liable for damages occurred to persons or things, if the above mentioned rules are not observed.**

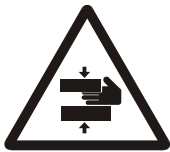
## SAFETY SIGNS AND DEVICES

The machines of Manufacturer are designed with fixed and movable shields used to protect the user against hazards that can be generated from moving parts. Moreover, they are equipped with signs complying with the safety regulations offering the possibility to the operator to work under fully safe conditions.

### CAUTION

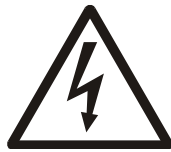
The Manufacturer declines any liability for damages caused to persons and things resulting from modifications to the machine or to parts of the same, as well as from the removal of protections or safety devices.

## HAZARD SIGNS



### CAUTION!

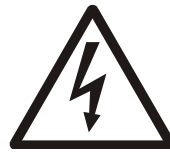
DANGER OF HAND  
SQUASHING



**220 V.**

### CAUTION!

DANGER OF  
ELECTRICAL NATURE



**380 V.**

### CAUTION!

DANGER OF  
ELECTRICAL NATURE



NON PULIRE NE LUBRIFICARE ORGANI IN MOTO  
NO CLEAN NOR GREASE THE MACHINE WHEN IT IS IN ACTION  
NE PAS NETTOYER NI LUBRIFIER LES ORGANES EN MOUVEMENT  
TEILE IN BEWEGUNG WEDER REINIGEN, NOCH SCHMIEREN  
NO LIMPIAR NI LUBRICAR ORGANOS EN MOVIMIENTO

### CAUTION!

MOVING  
PARTS

IT IS ABSOLUTELY FORBIDDEN TO REMOVE THE ABOVE MENTIONED SIGNS. THEY HAVE TO BE RESTORED IN CASE THEY ARE NO MORE READABLE.

## REGULATIONS FOR THE INSTALLATION OF THE MACHINE

All equipment used and the means made available by the Customer (transporters, cranes, lift trucks, ropes, belts, clamps, etc.) have to be homologated with safety warranty for the loads to be lifted, and have to be suitable to work in the particular conditions of the installation areas (dimensions of the rooms, load capacity of the floors, etc.)

The company is not liable for accidents due to inobservance of these provisions.

### CAUTION:

All lifting and transport means used must therefore be compatible with the working environment. The use of means with emission of toxic gases is therefore to be excluded in places where foodstuffs are handled.

### RECOMMENDATIONS:

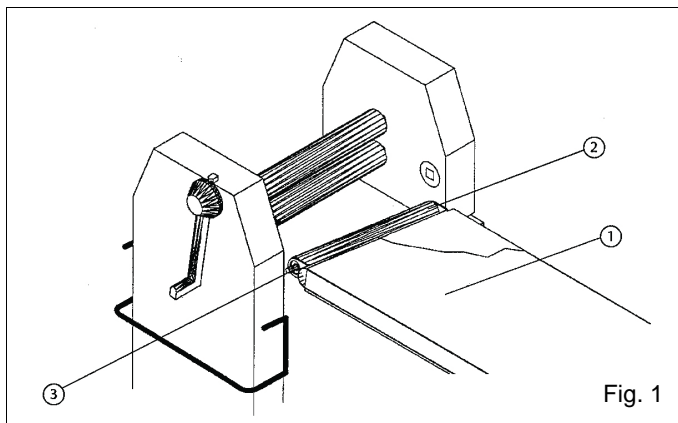
It is recommended to follow the provisions here below to install the machine:

- Organize the installation place of the above mentioned machine properly.
- The access to the working area has always to be limited to persons in charge of the works.
- The personnel charged with the assembly have to be equipped with cloths and materials suitable to safeguard their safety (safety shoes, gloves, etc.).
- If the machine is assembled on pallet, verify its fastening to the same in order to avoid hazards for persons and the damaging of the machines during unloading.
- It is recommended to lean the machine carefully on the ground in order to avoid bumps that would damage the machine.
- Use proper lifting equipment according to the weight of the components.
- Check and verify to avoid creating dangers and/or difficulties in the installation of other machines or to the personnel in charge during the positioning of the machine.
- Make sure that openings and paths for the handling of the machine are suitable.
- Provide an excellent lighting to the working area.
- Before installing the machine, verify that the floor on which the installation will be performed is even.

**The Manufacturer is not liable for damages occurred to persons or things, if the above mentioned rules are not observed.**

## ASSEMBLY:

After having positioned the machine, assemble parts of the machine that due to transport reasons have been separated (conveyor belts).



Lean the conveyor belts (1) in the elastic pistons (2); push the conveyor belt against the piston (2) until the coupling (3) enters its proper housing.

## CONNECTION TO THE ELECTRIC PART

**CAUTION!**

To perform any maintenance intervention on the electric panel, disconnect power supply from the panel using the proper switch.

Verify that the mains voltage is the same for which the dough sheeting machine is prearranged (check the machine rating plate).

## IDENTIFICATION OF THE MACHINE

Each dough sheeting machine is marked with a rating plate bearing the main feature of the same. It is located in an easy-to-find place. The data born on the rating plate represent your machine and its features certifying its compliance with the regulations in force.

Do not remove the plate for any reason nor use it for other aims. Should the dough sheeting machine be dismantled, make sure the plate is destroyed.



## SIZE AND OVERALL DIMENSIONS

TECHNICAL DATA	500BC	500BM	500N	500L	500LT	600N	600L	600LT	800L	1000L
Length A	1196	1590	1700	2400	2400	2500	3100	3100	3100	3100
Width B	895	895	930	930	930	1030	1030	1030	1130	1430
Height C	750	750	1160	1160	1160	1160	1160	1160	1160	1160
Length of belts D	500	700	700	1000	1000	1000	1400	1400	1400	1400
Width of belts E	500	500	500	500	500	600	600	600	800	1000
Height of surfaces from ground F				500	500	600	600	600	890	890
Motors power hp	0.5	0.75	0.75	0.75	1/0.5	1	1	1/0.75	1.5	1.5
Motors absor. kW/h	0.37	0.55	0.55	0.55	0.75/0.37	0.75	0.75	0.75/0.75	1.25	1.25

The above table contains the data for each dough sheeting machine.

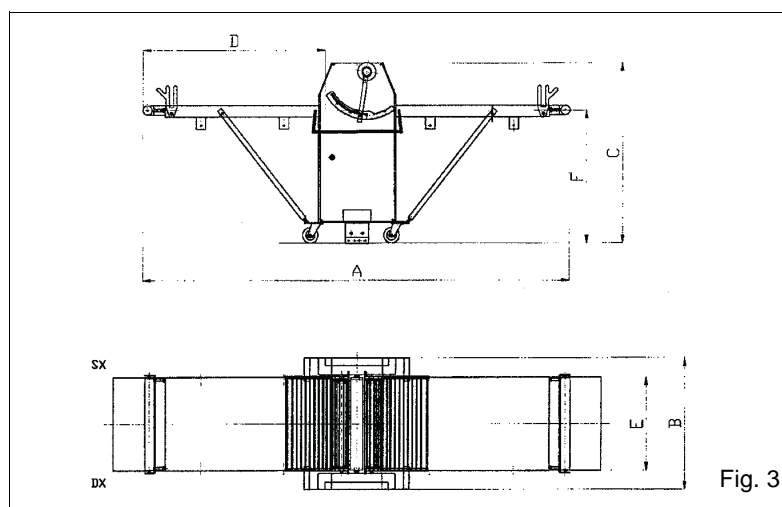


Fig. 3

## DESCRIPTION OF THE MACHINE

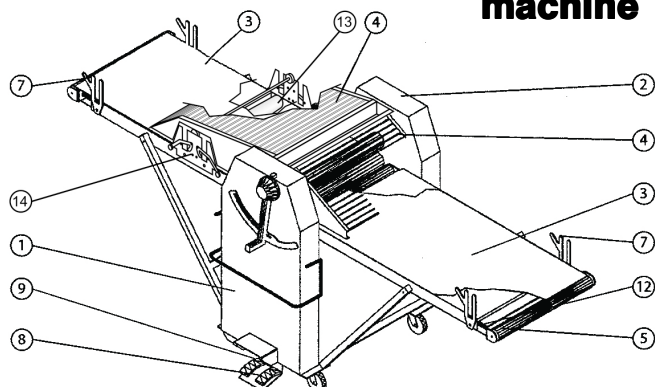
### Description of the operation:

The dough sheeting machine "SH" is used to obtain the rolling of dough. The dough passes through the cylinders which in their turn are adjusted to obtain different required rolling thickness values.

### Assemblies of machine components:

A sturdily-built structure of stainless steel or painted steel made up of a basement in which four self-blocking wheels are inserted to ease the handling, the electric panel and the traction motor. Moreover, it has two sides within which there are all the various kinematics and which are covered by two panels that can be opened. The structure has two sturdy arms of stainless steel or painted steel equipped with conveyor belts, with differentiated speed allowing the feeding of the dough.

## Construction section plane of the machine

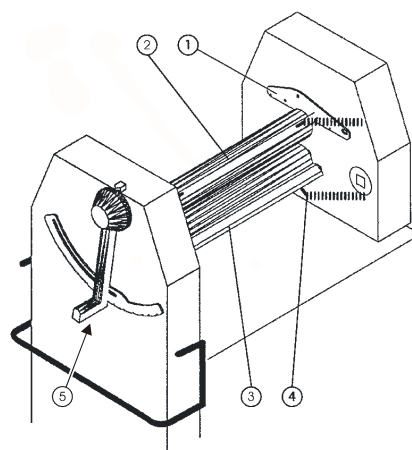


Legend:

1. Basement
2. Side
3. Conveyor belts
4. Protection
5. Conveyor belt stretching idle roller
6. Rolling cylinders
7. Support for rolling-pin
8. Right pedal to start the machine on the right
9. Left pedal to start the machine on the left
10. Conveyor belts idle rollers stretch adjustment screw
13. Counterpunch roll
14. Cutting device

Fig. 4

## ROLLING CYLINDERS ASSEMBLY



Legend:

1. Scraper-holder support on upper cylinder
2. Upper cylinder scraper
3. Lower cylinder scraper
4. Scraper springs
5. Handle springs

N.B.

Through a simple procedure, the scrapers can be disassembled for better cleaning.

Fig. 5

## USE OF THE MACHINE

Check that the run direction of the belts is right; to do this, use the pedals 1 and 2 and the lever (fig. 6). The machine does not work, if the safety protections (grates) are not lowered correctly (fig. 7). The micro-switches 1 (fig. 8) hinder its operation.

### CAUTION!

The protection grates shall not be used to stop the machine. To stop it, release the pedal or press STOP.

### IMPORTANT:

Should the machine not work, before performing any other checks, verify whether the machine panel is fed and that the protection grates are in low position.

Looking at fig. 9 it is possible to remark that the rolling cylinders can be moved closer or farther using the lever (1); moving it right or left, it is possible to vary the opening/closing of the cylinders thanks to a proper toothed element (2) and checking the wished thickness in the proper graduated indicator (3). The wished thickness of the dough can vary from 0 to 47 mm.

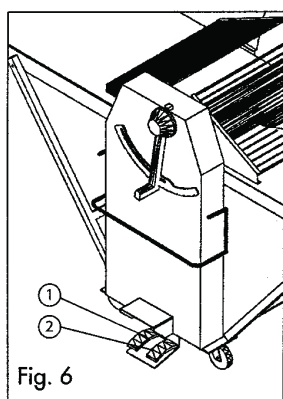


Fig. 6

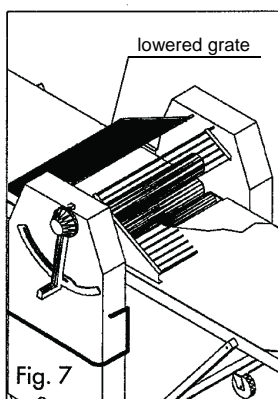


Fig. 7

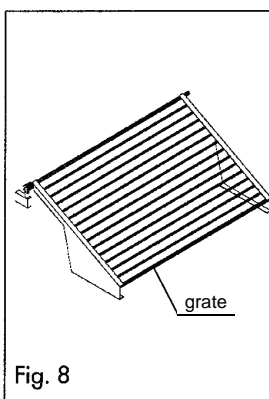


Fig. 8

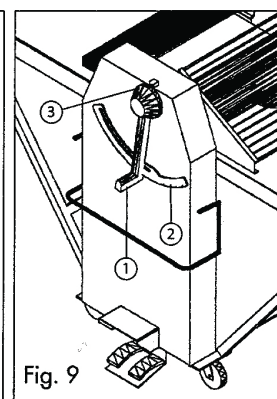
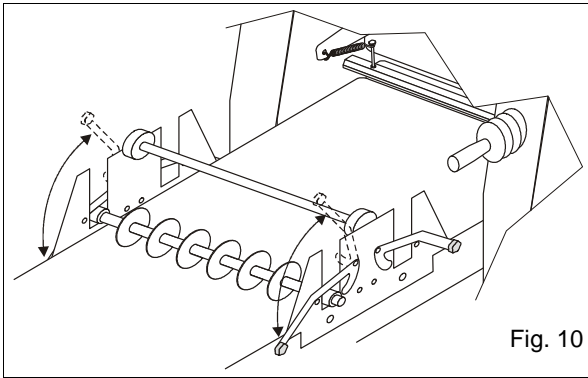


Fig. 9



## CUTTING ROLLS INSERTION

The wide range of interchangeable cutting rolls increases the versatility of the cutting device and of the dough sheet shapes that can be obtained.

- Lift the side bars using the handle
- Insert the most suitable cutting roll according to the type of production you wish to obtain
- Lower the side bars

It is possible to insert two cutting rolls in order to perform simultaneously two cuttings on the dough sheet.

## MACHINE MAINTENANCE

It is recommended to perform a careful cleaning of the machine after each production cycle of (this value can vary) hours. Clean very well the upper and lower scrapers of the rolling cylinders.

Should the conveyor belt slide, using the proper adjustment screw restore the initial working position of the belt.

### CAUTION!

Utmost care is recommended in the use of water jets in the working environment where there are the dough sheeting machines to assure power supply safety and avoid machine malfunctioning.

## GENERAL MACHINE DISMANTLING REGULATIONS

The dismantling of the machine has to be performed by a specialized technician.. In any case, carefully study the description of the machine already outlined in this manual in order to acquire knowledge and organize the dismantling operations.

## SAFETY PRECAUTIONS

The persons in charge have to be specialized and have to know the various problems, as well as adopt safety measures aiming at safeguarding their own safety and that of others.

## DIFFERENTIATED CLASSIFICATION OF MATERIALS

When performing the dismantling of the machine, it is recommended to subdivide the materials in order to ease their recycling:

Normal steel: basement, structure, arms (N.B.: it can be in stainless steel)

Stainless steel: all parts in contact with the product

Special steel: shafts, bearings, chains, etc.

Various: electric motors, electric cables, etc.

**NB:**

**Respect all national or local regulations for the dismantling of environment polluting materials..**

## GENERAL INSTRUCTIONS FOR THE DISASSEMBLING PROCEDURE:

Disconnect power supply and other connections

Remove the electric panel and the control equipment

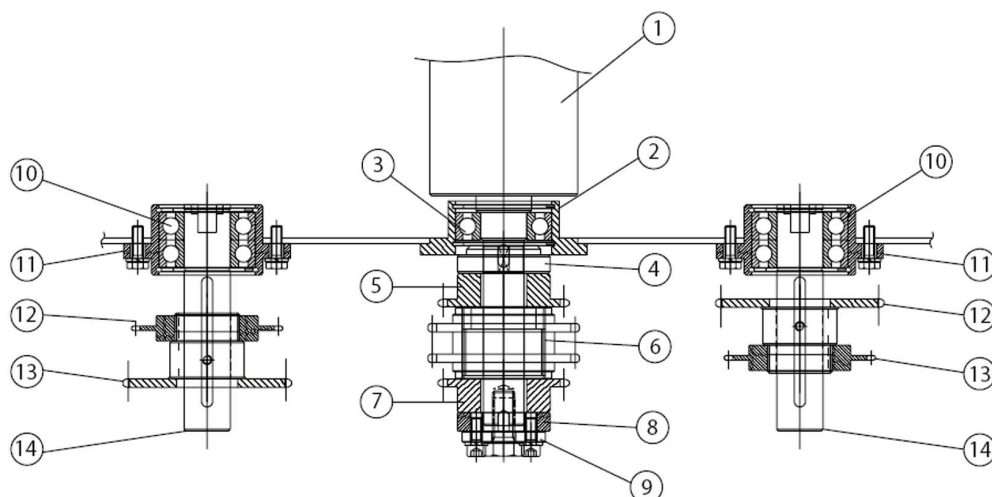
Remove the autonomous groups (motors, chains, gears, etc.) until it remains just the machine steel structural works.

### CAUTION!

It is recommended to destroy the machine rating plate so that it cannot be used for other aims.

After machine dismantling, this manual will lose its value.





## KINEMATISMS

Table 1

POS	CODE	NAME
1	02400263	CYLINDER
1	02400264	CYLINDER
2	02400250	SUPPORT
3	6205	BALL BEARING 6205
4	02400253	THICKNESS
5	02400254	PINION Z16
6	02400256	PINION Z19
7	02400254	PINION Z16
8	02400258	THICKNESS
9	02400265	FASTENING ELEMENT
10	6205	BALL BEARING 6205
11	02400134	SUPPORT
12	02400131	PINION Z21
13	02400138	PINION Z16 RL
14	02400130	PIN TO DRIVE THE BELT ROLLS

Fig. 11

## GENERAL ASSEMBLY

POS	CODE	NAME
1	02400303	MOTOR KW 0,75 - 0,15 (6-12P / B3)
2	02400201	ROD
3	02400260	PULLEY (340 2A)
4	02400204	PULLEY (50 2A)
5	02400261	BELT (A 63)
6	02400263	LOWER CYLINDER
7	02400096	UPPER CYLINDER
8	02400002	BASEMENT (600)
9	02400003	RIGHT SIDE
10	02400092	PINION (Z18D)
11	02400250	SUPPORT
12	6205	BALL BEARING 6205
13	02400092	PINION (Z18D)
14	02400221	PINION (Z33D)
15	6204	BALL BEARING 6204
16	02400220	PIN
17	02400090	SUPPORT
18	02400004	LEFT SIDE

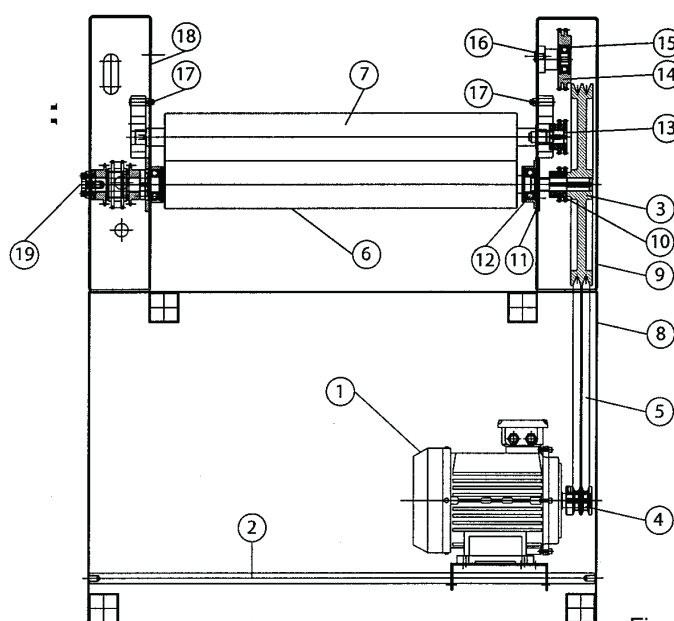
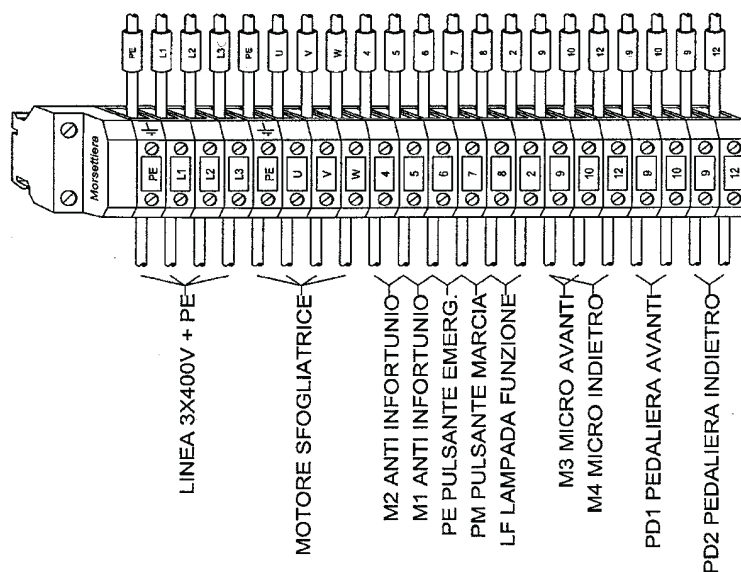


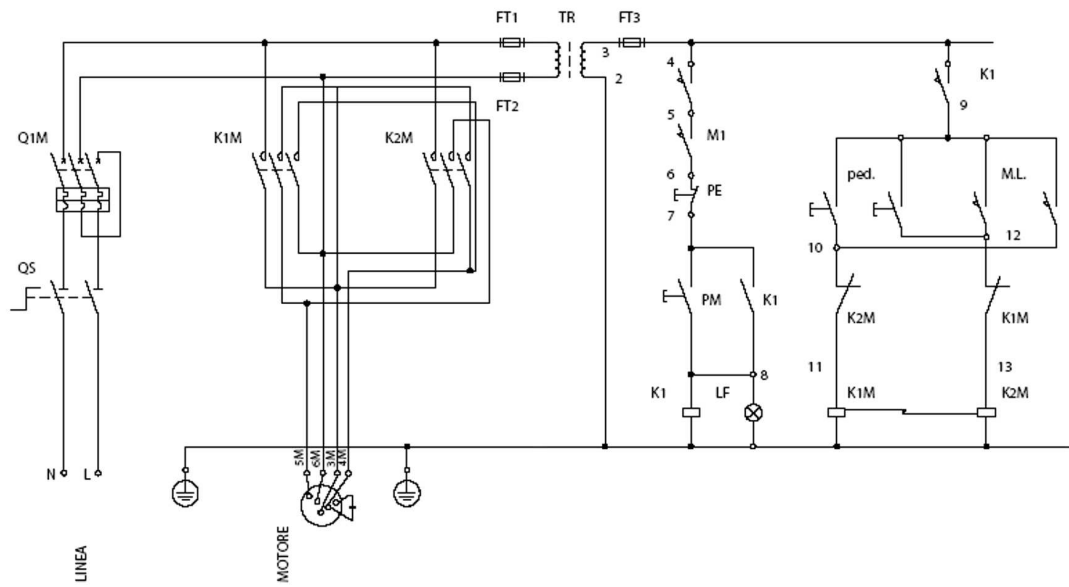
Fig. 12

## ELECTRIC PLANT

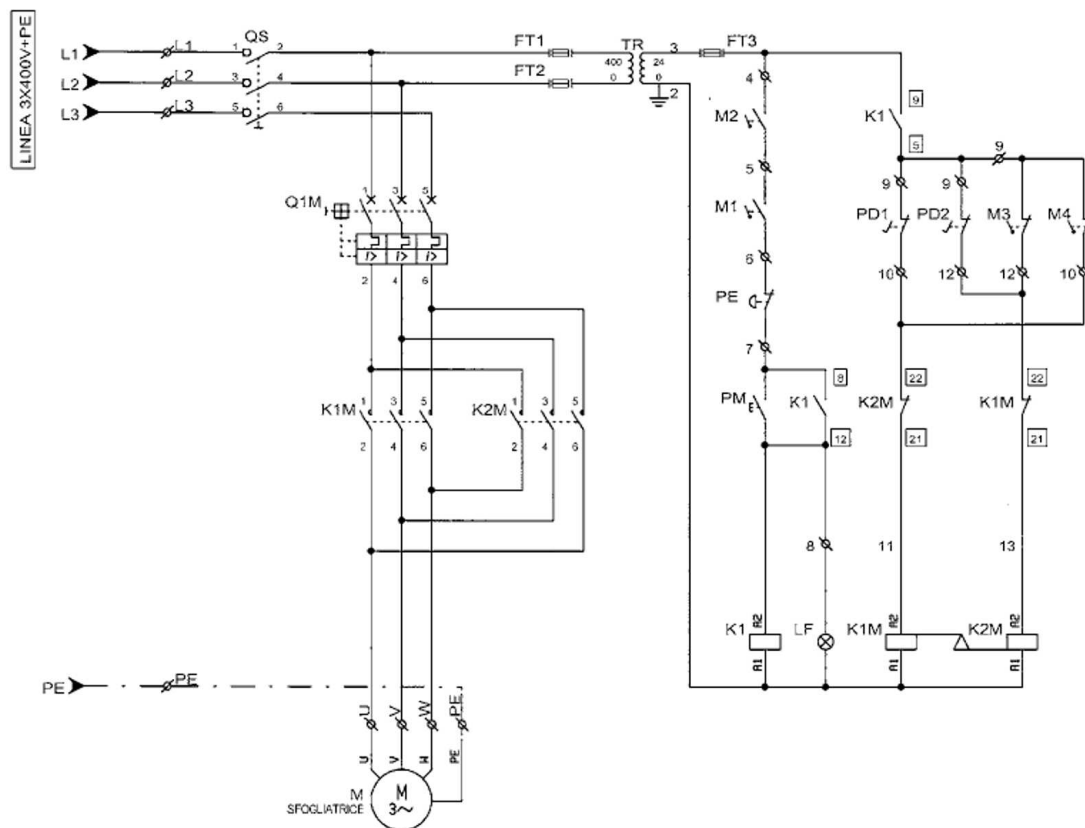
### BASIC LIST OF PARTS

ABBREVIATIONS	DESCRIPTION	CODE	MANUFACTURER
FT1	UNIPOLAR SELECTABLE FUSE CARRIER	PHC 1X38	WEBER
FT1	SERIES FUSE CH Gg 2A	1421001	WEBER
FT2	UNIPOLAR SELECTABLE FUSE CARRIER	PCH 1X38	WEBER
FT2	SERIES FUSE CH Gg 2A	1421001	WEBER
FT3	UNIPOLAR SELECTABLE FUSE CARRIER	PCH 1X38	WEBER
FT3	SERIES FUSE CH 10 Gg 2A	1421002	WEBER
K1	RELAY WITH 4 CONTACTS	MY424AC	OMRON
K1	SOCKET WITH 4 CONTACTS	PES15/4	OMRON
K1	SPRINGS FOR RELAY	MHO	OMRON
K1M	4KW POWER CONTACTOR	SC-03/T 24VAC1C	SIEI
K1M-K2M	MECHANICAL BLOCK	SZ-RM	SIEI
K2M	4KW POWER CONTACTOR	SC-03/T 24VAC1C	SIEI
M1	LEVER MICRO-SWITCH WITH ROLLER	AM1704	MATSUSHITA
M2	LEVER MICRO-SWITCH WITH ROLLER	AM1704	MATSUSHITA
M3	LEVER MICRO-SWITCH WITH ROLLER	AM1704	MATSUSHITA
M4	LEVER MICRO-SWITCH WITH ROLLER	AM1704AR22V2R-01R	MATSUSHITA
PE	MUSHROOM EMERGENCY PUSH-BUTTON	080XTGR02	SIEI
PE	EMERGENCY DISK	AR22FOL-10E4G	CEMA
PM	GREEN LIGHTING PUSH-BUTTON 24V	RAS-111	SIEI
PM	START PLATE	SMP G	MOELLER
Q1M	PROTECTION SWITCH 2,5A	19100SM	SIEI
QS	DISCONNECTING SWITCH TK3X16A	19500	TECHNOELECTRIC
QS	BLACK DOOR LOCKING HANDLE	19535-200	TECHNOELECTRIC
QS	EXTENSION FOR TK 200 MM	T174/009	TECHNOELECTRIC
TR	TRANSFORMER 30VA (0-230-400/0-24)		CRE
PD1	PEDAL CONTROLS		
PD2	PEDAL CONTROLS		





## SINGLE PHASE DOUGH SHEETER



### THREE PHASE DOUGH SHEETER