

USE AND MAINTENANCE MANUAL

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# SEMI-AUTOMATIC ROUNDING DIVIDERS

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It is important to read this manual and comply with the suggestions and/or rules for unpacking, installation, use and maintenance of the machine. If the machine is sold, the manual must be given to the new owner.

Only operators trained for use and having read the manual can operate the machine.

The manufacturer's warranty obligations only apply to defects arising from correct use of the machine, as described in this manual.

The manufacturer cannot be held in any way liable for damage to people or property, if caused by improper use of the machine.

The manufacturer cannot be held liable for errors and/or oversights in this manual.

All the machinery complies with EC and EAC standards and is manufactured in Italy.



If any part of the manual is unclear, immediately contact the manufacturer before starting work with the machine. Do not hesitate to contact the manufacturer directly for any problems relating to operation; our technical staff will help you with any problems relating to operation and production. Specify the model and serial number for all correspondence about the machine.

#### **ATTENTION**

- . Do not work under the influence of alcohol, drugs or medicine which could alter physical conditions.
- . Keep your hair and other parts of your body far from rotating parts, belts and gears.
- . Keep the danger and safety data labels clean and tidy.

After sales support: contact the retailer.

All machine data are outlined on the serial number:

Modello/Mod.	ST A 20
Data/Date	05 / 2016
Matricola/Serial Number	90166275
Voltaggio/Volt.	400 V-50/60 Hz-3 ph
Potenza/Kw	0,75 kW
Ampere/A	2,21 A
Peso/Weight	200 Kg

MADE IN ITALY



## 2.1 - VOLTAGES

All the machines are supplied as standard with a 400 Volt 50 Hz 3 phase connection.

On request: different voltages can be manufactured.

## 2.2 - POSSIBLE VERSIONS

See technical data table on page 18.

## 2.3 - MATERIALS USED

- .Frame in electro-welded, painted or galvanised steel;
- .Coating in painted steel or stainless steel.
- .Heads in MG5 Anticorodal aluminium with anodising;
- .Knives in stainless steel AISI 304;
- .Shaping plates in polyethylene for foodstuff use PETG;
- .Head ring in aluminium with chemical nickel-plating;
- .Oil for hydraulic control unit: H32.

N.B.: all parts in contact with the product are suitable for the food industry

### 3.1 - WARNINGS

The following signals warn the operator of possible danger due to mechanical or electrical components.



Before using the machine, you need to carefully read this manual and follow the instructions. Ensure the warning adhesives are in good condition and, if necessary, replace them. When you use the machine for the first time, carefully follow the instructions, to avoid unpleasant surprises.

Do not allow unqualified staff to use the machine.



The machine can only be used by qualified staff.



Ensure the machine is off during cleaning, maintenance and lubrication.



Return the safety guards to their original position after cleaning, maintenance or lubrication of the machine.



Both mechanical and electrical repairs must be carried out by qualified staff, i.e. by a person who has familiarity with and has the right qualifications for installation, assembly and use of the machine.

### 3.2 - DESCRIPTION OF THE PARTS COMPOSING THE MACHINE





- . Remove the plug from the electrical power supply during machine maintenance.
- . Only qualified and well-instructed staff can carry out mechanical or electrical operations.
- . The machine must be used by one person at a time.
- . Do not remove the guards when the machine is on.

#### 4.1 DANGER DUE TO MECHANICAL COMPONENTS



- . The safety guards protect all the parts. Keep them on during normal operations. All the guards are controlled by a micro. An error will display when they are not closed, therefore the machine will not work.
- . There is a risk of injuring yourself during machine maintenance, particularly when parts are removed without complying with safety standards.
- . There is no danger if the machine is used correctly, as described in chapter 8.

#### 4.2 DANGER DUE TO ELECTRICAL COMPONENTS



- . Such danger is not covered because the components are not directly accessible. Broken or damaged cables or electrical components must be promptly replaced by specialist staff or an electrician.

#### 4.3 DANGER DUE TO HYDRAULIC COMPONENTS



- . Such danger is not contemplated because the components withstand at least five times 40 bar pressure.

#### 4.4 DANGER DUE TO LACK OF HYGIENE



- . If the precautions in the MAINTENANCE chapter are not strictly complied with, there may be serious hygiene-related danger.

#### 4.5 DANGER DUE TO NOISE



- . The average noise level measured near the work station is under 70 decibels.

## 5.1 TRANSPORT

The machine must be transported in its original packaging. It must be moved with an adequate lifting system to avoid damaging it and injuring yourself.



- . Do not position anything on the package.
- . The machine must always be transported in a vertical position.

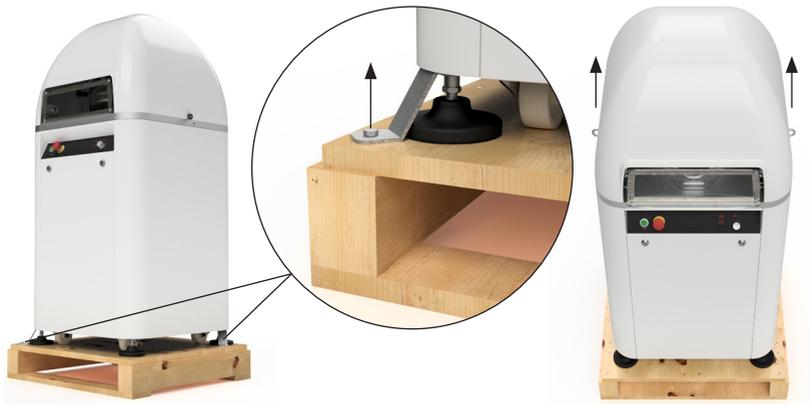
## 5.2 UNPACKING

The machine can be sent packaged with a pallet and cardboard, cage or crate.



The packaged machine can therefore be lifted with a forklift or pallet truck by inserting the forks in the specific spaces prepared under the packaging. It can also be lifted with a crane, passing the ropes or straps under the packaging. In this case, comply with the maximum tensioning angle of the ropes which must be 45°, as shown in the figure.

Remove the packaging vertically. Carefully unpack the machine and check there are no signs of damage from transport. If found, promptly inform the carrier. You are always advised to photograph the damage. Remove the fastening brackets as in the figure and, using a forklift (or a lifting device), remove the machine from the pallet. To ensure further staff safety, you are advised to maintain a sufficient distance from the machine when it is being lifted.



## 6.1 POSITIONING AND MAINTENANCE

The machine must only be installed by qualified and authorised staff.

The machine must only be used for the purpose of dividing or dividing and rounding dough.

The warranty is not valid if changes are made without the manufacturer's authorisation and/or if non-original spare parts are used. Use of non-original spare parts can damage the machine and/or harm the operator.

The machine must be positioned on a solid and regular floor. The machine is very stable.

## 6.2 ELECTRICAL CONNECTION

A qualified technician should carry out installation and an electrician should connect the machine to the power supply system. Firstly check the voltage and the connection phases are equal to those of the machine (see identification plate). If this is not the case, contact the retailer.

Check the rotation direction of the motor on the machine. Turn the main knob to position I-ON. Close the guard casing and run an "empty" work cycle. Check if the shaping plate oscillates. If this is not the case, an electrician must invert the phases, i.e. he must invert the two cables in the power plug to change the rotation direction of the motor.

## 6.3 DISPOSAL OF THE MACHINE

When you want to dispose of an entire machine, parts or just the packaging, you must comply with the waste disposal rules. Specifications regarding the material on the various parts can be obtained from the manufacturer. See WEEE.

## 6.4 PLACING MACHINE OUT OF SERVICE

Switch off the machine by bringing the main switch to 0-OFF and subsequently protecting the machine from external factors and leave it in a dry and enclosed location.

## 7.1 SCOPE OF THE MACHINE

**Rounding dividers** are machines that enable cutting a piece of raw dough in small parts and then, thanks to the oscillating plate rounds every single piece, to obtain balls of equal weight and shape, all in just a few seconds!

**N.B.: all parts in contact with the product are suitable for the food industry.**

## 7.2 UNPERMITTED USE OF THE MACHINE

The divider can only be used for the activities described in chapter 8.

The machine can only be cleaned using products suitable for the food industry.

Ensure the machine is on a flat surface.

Only use original spare parts.

Do not use mixtures with metal, stones or other particular objects, which could compromise parts of the machine.

## 7.3 DESCRIPTION OF THE COMMAND KEYPAD



- a. Start Button
- b. Emergency
- c. Digital display
- d. Knob to change the programs and the working times

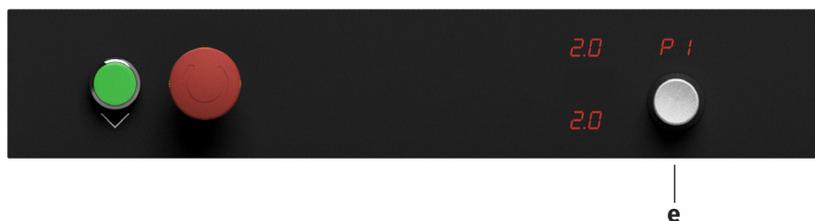
## 7.4.1 WORK PROGRAM SELECTION

To select the program to work with, keep the knob pressed for 3 seconds (the display highlights relating to the program); turn the knob to the right or left to increase or decrease the program number. Once the work program is chosen, confirm by pressing the knob once.



## 7.4.2 CHANGING THE WORKING TIMES

To change the working times, keep knob "e" pressed for 3 seconds (the program number is highlighted). Select the program number, keep the knob to change the individual working times pressed for another 3 seconds with the procedure described below.

**t 1 (pressing time) \***

The relevant display is highlighted.

Turn the knob to the right or left to increase or decrease the value.

Once the desired value is set, press the knob once.

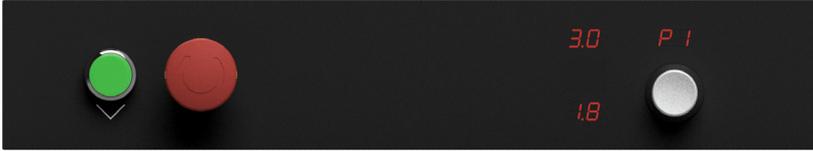
**t 3 (shaping chamber) \*\*\***

The relevant display is highlighted.

Turn the knob to the right or left to increase or decrease the value.

Once the desired value is set, press the knob once.

At this point, the machine returns to display the program (all the values are highlighted) and is ready for the working cycle with the selected program. See figure below



**\* t 1 (pressing time)**

This parameter identifies the time needed to evenly distribute the dough inside the basin, to ensure in the cutting phase each piece is the same weight and volume.

**\*\*\* t 3 (opening of the shaping chamber)**

This parameter is needed to open or close the shaping chamber; it is used to create the right space in the chamber which, with the round phase, enables a perfectly shaped ball to be created.

**7.5 ERROR SIGNALS**

The display can signal the following errors:

- E1** - Emergency inserted
- E2** - Thermal relay
- E3** - Casing or safety guards open



## 8.1 WORKING CYCLE

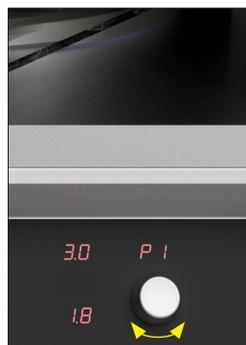
The phases follow for correct use of the rounding divider



1. Position the main switch in the | ON position



2. Insert the plate with the weighed dough inside the machine, paying attention you insert it correctly



3. Set the pre-selected program for the working cycle see chap. 7.4.1



4. Close the guard casing. Press the green Start key



5. Wait for the green button to flash; Activate the shaping lever



6. Open the guard casing and remove the plate with shaped balls

## 8.2 USEFUL ADVICE

To obtain a good product, proceed as follows:

- . Do NOT put flour on the shaping plate.
- . Be sure the dough has the right pre-leavening time;
- . Place the dough (the dough must stay inside the plate imprints);
- . If the dough is sticky, put flour on the dough.

The following information will help you obtain the best possible results.

**The pieces of dough are not the same weight?**

- . Ensure the piece of dough is positioned at the centre of the plate and is slightly pressed by hand. The dough must stay inside the plate imprints.
- . Be sure the dough has the right pre-leavening time (depending on the dough, but fifteen minutes is normally enough)
- . If the outer pieces are smaller than the inner ones, you need to increase the pressing time
- . If the outer pieces are bigger than the inner ones, you need to decrease the pressing time.

**The pieces of dough are not completely shaped or have an irregular surface?**

- . Increase or decrease the shaping chamber;
  - . Increase or decrease the rounding time
- The dough will have a more even shape.

**The pieces of dough have not got a smooth surface?**

- . Increase or decrease the shaping chamber;
- . Increase or decrease the rounding time



. Check the weight of the dough to cut complies with the capacity of the machine.



. You are advised to correctly insert the shaping plate inside the machine because incorrect insertion of the plate could seriously damage the machine.



. Check the rotation direction of the shaping plate, otherwise the machine will not work.  
If necessary, invert two phases of the current socket.



. With a medium consistency dough, the machine can produce pieces of dough varying in weight by 3-4%.

## 10.1 DAILY MAINTENANCE

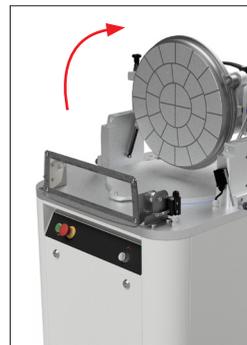
To clean the machine daily, follow the phases as outlined below



1. Remove the upper casing by unscrewing the specific fastenings (x2)



2. Open the fastening thrusts (x2)



3. Open the cutting unit accompanying it to the support



a

The machine will automatically display the “CL” cleaning program as shown in the image below.



4. Press the “Start” button “a”; the knives will exit the machine for cleaning



5. Once the knives are clean, press the Start key again and the knives return to position



6. Close the cutting unit accompanying it to the support



7. Close the fastening thrusts (x2)



8. Place the upper casing by screwing in the specific fastenings (x2)



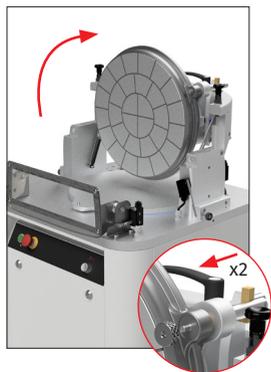
. Controllare che i due spintori di fissaggio siano correttamente agganciati. Se così non fosse si possono causare gravi danni alla macchina.

## 10.2 PERIODIC MAINTENANCE

To ensure the machine works properly and, in particular to ensure a long life, you are advised to periodically clean the ring on the head (see instructions below).

The stainless steel parts, the painted covers, the polyethylene PE500 and the plates in PETG can be easily cleaned with water and soap or a neutral detergent, then you need to rinse them with plenty of water and dry them with a soft cloth.

Having removed the upper casing as previously described, continue as illustrated



1. Open the cutting unit accompanying it to the support. Remove the ring fastenings (x2)



2. Remove the ring and clean it inside with a plastic scraper



3. Close the cutting unit accompanying it to the support and close the fastening thrusts (x2)

no. divisions	weight min*	weight max *	basin capacity	ø head diameter	hourly capacity**	dimensions bxxhxl	weight
	g	g					
11	180	500	5,5	400	1300	750x700x1450	220
15	150	360	5,5	400	1800	750x700x1450	220
18	120	280	5	400	2100	750x700x1450	220
22	60	220	5	400	2600	750x700x1450	220
30	40	135	4	400	3600	750x700x1450	220
36	34	110	4	400	4300	750x700x1450	220
30s	25	90	2,7	340	3600	750x700x1450	220
52	12	40	1,6	340	6200	750x700x1450	220



**Nota bene:**

\* the min./max weights are provided purely as an indication and can vary based on the degree of dough leavening, \*\* hourly production rates are also approximate, as they always depend on the user's internal organisation (tests conducted in an equipped laboratory).





All machines are in conformity with EC regulations and are manufactured in Italy.

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