



IMPERIA & MONFERRINA S.p.A.

Plant and Offices:

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www.imperiamonferrina.com

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P2 PLEASURE KNEADING MACHINE RAVIOLI MAKER DRAWER

User and maintenance manual



**This handbook is an integral part of the machine.
Read this handbook and the attachments with attention.
Knowledge of the instructions contained is indispensable for
machine use and to carry out maintenance in safety.**

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MACHINE DESCRIPTION

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If in doubt do not proceed!

Telephone the *IMPERIA & MONFERRINA S.p.A.* After Sales Service immediately.

Tel. 0039.0141.27.60.11

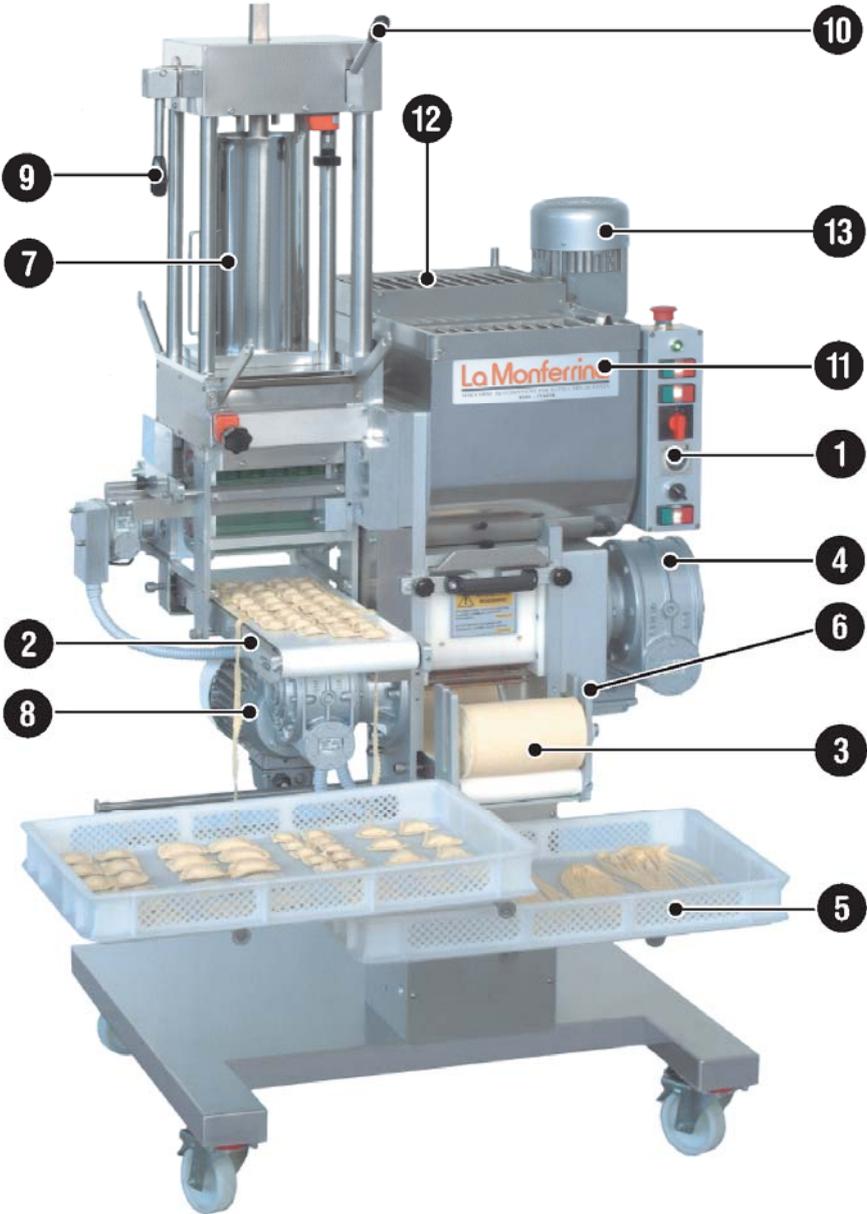


Machine main components

The machine consists of the following units:

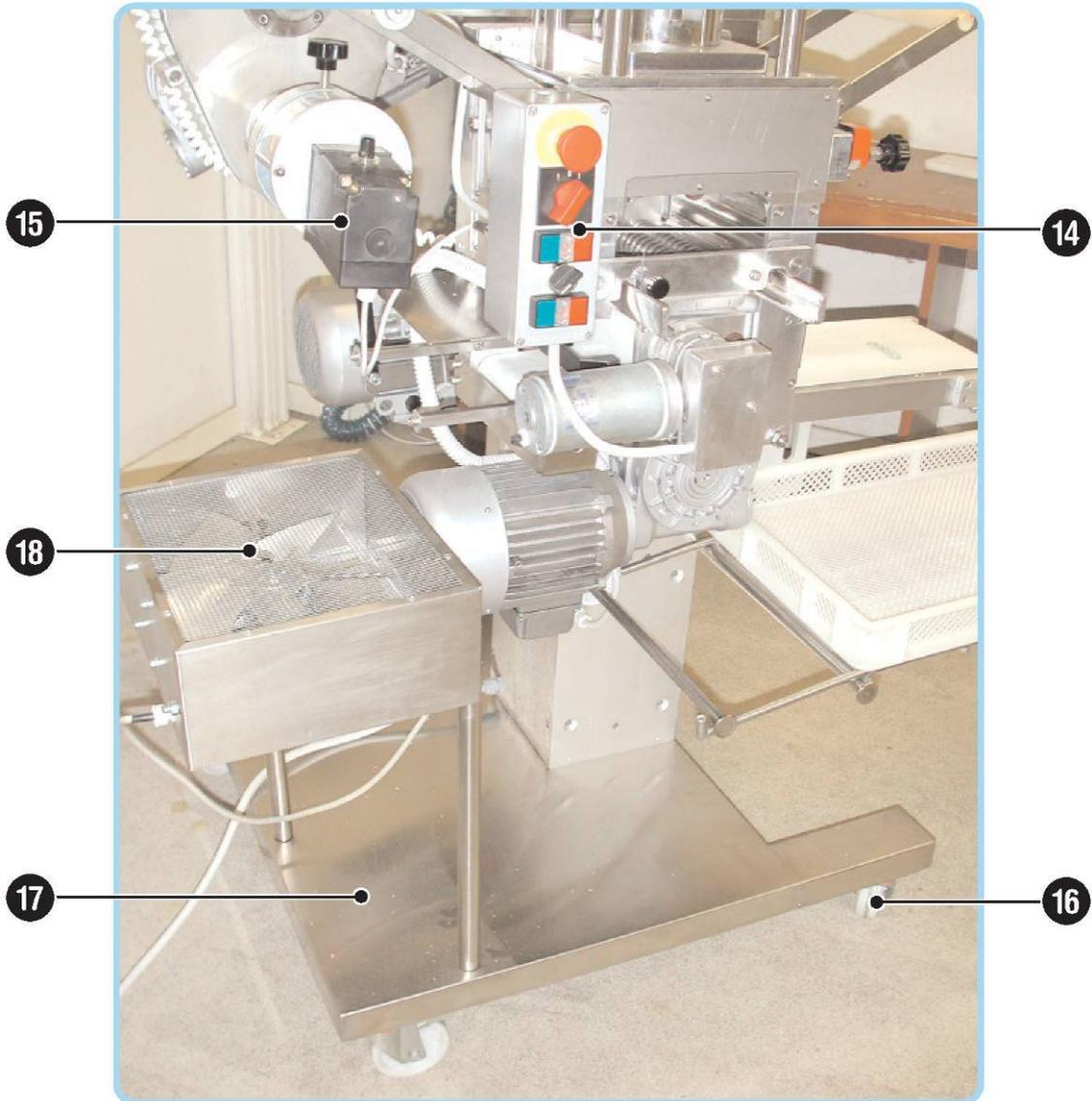
- 1 Push-button control panel, main reservoir and ravioli maker
- 2 Pasta conveyor belt
- 3 Pasta wrapping roller
- 4 Motor for thickness rollers
- 5 Sieve
- 6 Wrapping roller support guides
- 7 Filling container
- 8 Kneader and ravioli maker motor control
- 9 Filling insertion lever
- 10 Lever for manual lowering of the filling piston
- 11 Main reservoir for kneader
- 12 Secondary reservoir for kneader
- 13 Secondary reservoir motor
- 14 Secondary reservoir push-button control panel
- 15 Pasta cutter motor
- 16 Pivot wheels with brake
- 17 Base
- 18 Fan

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Fitted accessories

N° 1 Drilled sieve



N° 1 Container



N° 4 Pasta wrapping rollers
N° 1 Lever
N° 1 Allen wrench



N° 4 Sieve and container support rod



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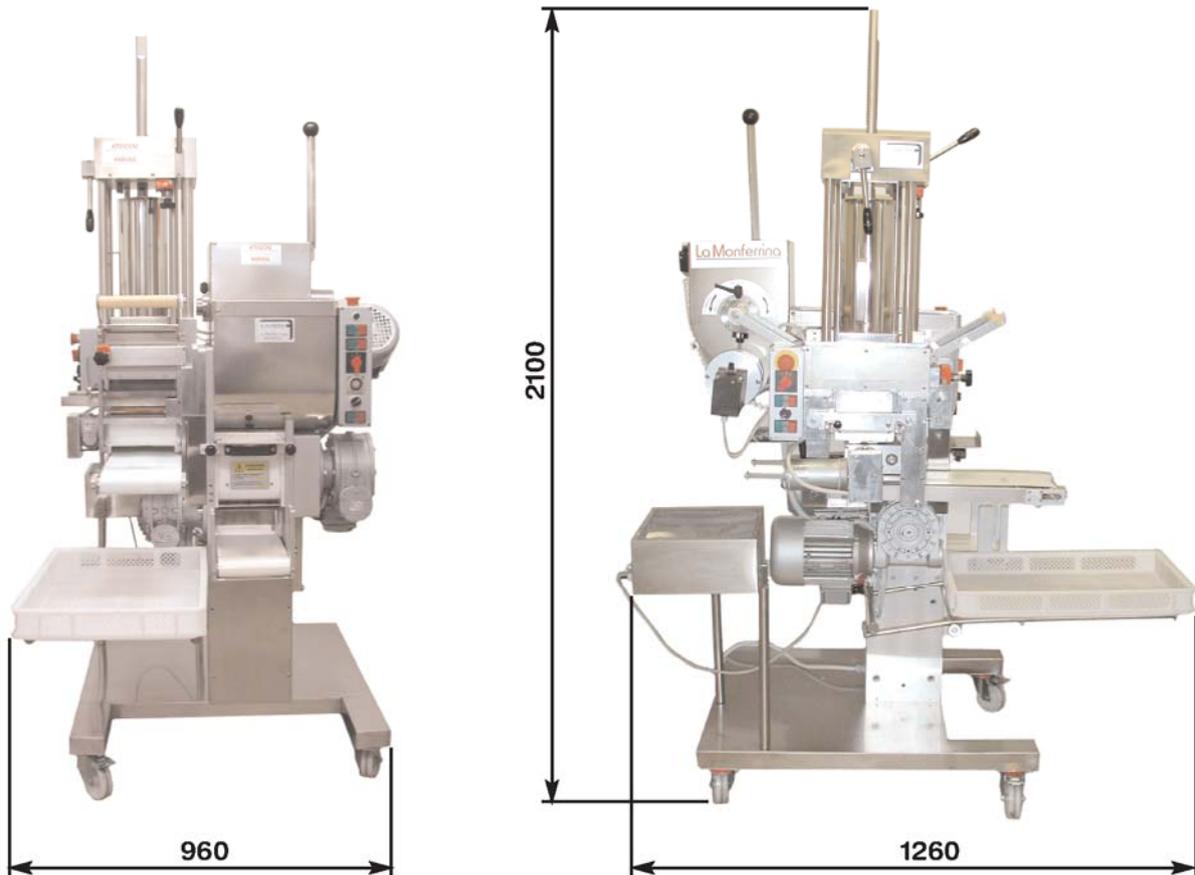
Anticipated uses

This particular model of machine was designed, constructed and made safe only for the production and subsequent working of pasta obtained from raw materials such as durum wheat and normal flour with the addition of water and/or eggs.

Any application other than that specified is considered **IMPROPER**.

The machine is in any case aimed at professional, industrial applications.

Technical specifications



Weight without moulds	Kg	250
Weight with double reservoir and extrusion unit	Kg	326
Weight with double reservoir	Kg	292
Weight with single reservoir	Kg	262
Width of pasta sheets	mm	167
Thickness of pasta sheets	mm	2,5
Pasta sheet production – single reservoir	Kg/h	30
Pasta sheet production – double reservoir	Kg/h	50
Tagliatelle production – single reservoir	Kg/h	30



Tagliatelle production – double reservoir	Kg/h	50
Ravioli production	Kg/h	75/85
Drawn pasta production	Kg/h	20/30
Power supply		
Voltage	V	380
Frequency	Hz	50
Power of motor with double reservoir and extrusion unit	Kw	3,15
Power of motor with double reservoir	kW	2,95
Power of motor with single reservoir	kW	2,05

Manufacturer identification data

IMPERIA & MONFERRINA S.p.A.

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www.imperiamonferrina.com

Machine identification plate / EC marking

In the case of all communication with the manufacturer, always quote the information on the machine’s ID plate.



La Monferrina			
Via A. Vespucci, 38/40 - 14100 ASTI Italy			
Tel. (0141) 27.32.32 - Fax (0141) 27.54.85			
Model	<input type="text"/>		
Serial Number	<input type="text"/>	V	<input type="text"/>
Year	<input type="text"/>	Hz	<input type="text"/>
— CE —			

Permitted environment conditions

To guarantee correct functioning, the machine is to be placed where it is protected against weather and with an environment temperature ranging between 20 °C and 30 °C and with relative humidity ranging between 40% and 50%.

The working environment is to be clean and well lit.



Noise level

The phonometric tests carried out on this specific machine model highlight an acoustic pressure of:

LEP,d < 70 dB (A)

Overall dimensions

The overall dimensions are indicated in section “Technical data”.

Scrapping



Environment!

When scrapping, all the machine components are to be disposed of in the appropriate waste dumps in accordance with the laws in force.

The machine has a pure, unalterable stainless-steel structure and conforms with current safety regulations in Italy and abroad.

The main components of the machine are:

- Single-phase 220 V or three-phase 380 V electric motor.
- Stainless steel tank and feeder.
- Stainless steel shaft that can be removed to facilitate cleaning and maintenance.
- Plates for every type of dough.
- Automatic dough-cutter with speed variator and stainless-steel blade.
- Cooler blower for rapidly drying the dough.

The machine's frame is made of steel (AC) and polycarbonate (PC).

The electric motor is made of aluminium (AL), steel (AC), copper (CU) and polyamide (PA). Recover the used reducer oil and dispose of it at specially – equipped collection centres.

Disconnect all power supplies before starting scrapping operations.

Guarantee

IMPERIA & MONFERRINA S.p.A. provides a warranty for 12 months from the date of purchase for all parts, excluding those subject to normal wear.

The warranty is annulled in the case of repairs on the machine carried out by unauthorised persons or if equipment or accessories not supplied by **IMPERIA & MONFERRINA S.p.A.** are used or that have not been recommended or approved by the same, or in the case of removal or alteration of the serial number during the warranty period.

The guarantee runs from the purchase date and the card, duly completed in full, must be sent within ten days.



The purchase date is the one shown on the carriage note/invoice at the time when the machine is delivered by the re-seller.

IMPERIA & MONFERRINA S.p.A. under takes to repair or replace parts which show manufacturing faults during the guarantee period, free of charge. The warranty does not cover any cleaning of operating components.

Defects that are not clearly due to materials or manufacturing shall be examined at our "Technical Assistance Centre" or our works.

If the claim proves to be unjustified, all repair and/or part replacement costs shall be borne by the customer.

The guarantee certificate and the carriage note/invoice must be shown to the technical personnel carrying out repairs or must accompany the machine sent for repair.

The guarantee is not extended following technical work performed on the machine. Repairs are carried out at our "Technical Assistance Centre" at our works and the part/s involved must arrive with carriage paid (carriage expenses borne by the customer unless agreed differently).

The guarantee does not however cover: accidental damage, in transport, through negligence or inappropriate treatment, incorrect use not conforming with notes shown in the instructions booklet and anyway caused by phenomena not depending on the regular functioning or use of the machine.

The **IMPERIA & MONFERRINA S.p.A.** company declines all responsibility for any harm to persons or damage to property arising from bad or imperfect use of the machine.

Professional qualifications of persons enabled to operate on the machine

The machine is to be used only by authorised persons who have been instructed for the purpose; the same precaution is valid for the persons who shall carry out the maintenance. Do not permit unauthorised persons to approach the machine when running or during maintenance.

After receiving all the instructions necessary, only the following professional operators are permitted to work on the machine:

Safety officer

The safety officer is responsible for protection and prevention of risks in the company, as specified in the European Directive 89/391 EEC (Safety in the workplace), acknowledged in Italy by D.L. Executive Order of 12/11/1994.

The safety officer shall ascertain that all the persons operating on the machine have received all the relevant instructions contained in this handbook.



Operator (in charge of running the machine)

Trained operator qualified to run the machine (work cycle, any adjustments, etc.).

This operator shall only carry out the operations specifically assigned and described in this handbook.

It is most important to avoid that the machine is not used by unskilled persons.

Mechanical maintenance engineer

Qualified technician able to run the machine as OPERATOR and, furthermore, able to run it with protections disabled, to intervene on mechanical components to carry out adjustments, maintenance and repairs.

This engineer shall not intervene on live electrical systems.

The mechanical maintenance engineer is to have generic mechanical experience and specific experience on this type of machine.

Electrical maintenance engineer

Qualified technician able to run the machine as OPERATOR and furthermore able to run it with protections disabled, to intervene on adjustments and electrical systems for maintenance and repairs.

Able to operate with live voltage in the electric panels, control equipment, etc.

The electrical maintenance engineer is to have generic experience on electric panels and specific experience on the panel and electrical components of this machine.

Manufacturer

For any other operation not specifically foreseen in this handbook or assigned to a professional technician other than those indicated above, contact *IMPERIA & MONFERRINA S.p.A.*

Suggestions for the production of “extruded” pasta

Any type of flour or wheat flour or combinations of flour may be used for the dough. The dough can be kneaded using only eggs or a mixture of eggs and water. Spinach, or well-minced vegetables, may be used to replace some of the water in order to obtain green pasta, or tomato concentrate used to obtain red pasta. In these cases it is advisable to use durum wheat flour.

To obtain a good dough, approximately 300/350g of liquid are required for each Kg of flour.



This liquid may consist of only eggs, only water or a mixture of water and eggs. Because the humidity of the flour varies according to its type, the climate and where it is stored, the indicated doses must be adapted to the type of flour used, reducing or increasing the amount of liquid as required.

After kneading, the dough should appear as granules about the size of a coffee bean. If the flour amalgamates forming a homogenous dough, it is a sign that too much liquid was added. In this case, before drawing the pasta, some flour must be added and the dough must be kneaded some more. If instead, the flour does not form granules but remains dry, a little more liquid must be added.

Here are some recipes for making various types of pasta. Keep in mind that ingredients and quantities may be changed according to one's own experience and taste.

Preparation of pasta sheets for ravioli:

70% type "00" flour

30% durum wheat flour

5 eggs per 1Kg of dough + water

Knead for approximately 10 minutes

The dough should contain a percentage humidity of ~ 32%, made up of eggs and water.

Preparation of pasta for tagliatelle:

70% type "00" flour

30% durum wheat flour

5 eggs per 1Kg of dough + water

or:

100% durum wheat flour

5 eggs per 1Kg of dough

Knead for approximately 15 minutes with ~ 33% humidity

Preparation of wheat flour pasta:

(type: rigatoni, fusilli, conchiglie, spaghetti, etc.)

For this type of pasta only durum wheat flour is utilised, with 30/33% water added.

When different types of flour are used together, it is better to mix them thoroughly before adding the liquid. About 2g of salt per 1Kg of flour may be added to the dough, according to taste, being careful to mix it thoroughly into the liquid.

Suggestions for making "sheet" pasta

Any type of flour or wheat flour or combinations of flour may be used for the dough. The dough can be kneaded using only eggs or a mixture of eggs and water. Spinach or well-minced vegetables may be used to replace some of the water, in order to obtain green pasta, or tomato concentrate used to obtain red pasta. In these cases it is advisable to use durum wheat flour.



To obtain a good dough, approximately 300/350g of liquid are required for each Kg of flour.

This liquid may consist of only eggs, only water or a mixture of water and eggs. Because the humidity of the flour varies according to its type, the climate and where it is stored, the indicated doses must be adapted to the type of flour used, reducing or increasing some liquid as required.

After kneading, the dough should appear as compact grains. If the flour amalgamates forming a homogenous lump, it is a sign that too much liquid was added. In this case, before rolling the pasta, some flour must be added and the dough kneaded some more. If instead, the flour does not form grains but remains dry, a little liquid must be added.

The rolling of the dough must be carried out by an initial rolling between rollers at approximately 0.8mm distance apart, then, increasing the distance between the rollers step-by-step up to 3.5mm, passing the dough through between the rollers several times until the pasta sheets become even and homogenous.

At this point, using the roller adjustment, gradually bring the pasta sheets down to the thickness desired.

Here are some recipes for making various types of pasta and fillings. Keep in mind that ingredients and quantities may be changed according to one's own experience and taste.

Preparation of pasta sheets for ravioli:

70% type "00" flour

30% durum wheat flour

5 eggs per 1Kg of dough + water

Knead for approximately 10 minutes

The dough should contain a percentage humidity of ~ 32%, made up of eggs and water.

Preparation of pasta for tagliatelle:

50% type "00" flour

50% durum wheat flour

7 / 10 eggs per 1Kg of dough

or:

100% durum wheat flour

7 / 10 eggs per 1Kg of flour

Knead for approximately 15 minutes with ~ 33% humidity.

Preparation of wheat flour pasta:

(type: rigatoni, fusilli, conchiglie, spaghetti, etc.)



For this type of pasta only durum wheat flour is utilised, together with 30/33% water.

When different types of flour are used together, it is better to mix them thoroughly before adding the liquid. About 2g of salt per 1Kg of flour may be added to the dough, according to taste, being careful to mix it thoroughly into the liquid.

For the meat filling:

Sauté a good amount of onion, add the veal, pork, chicken or turkey, sausage meat, etc (any meat is suitable), add some greens (spinach, chard or cabbage) and mince all together in a mincer until a very fine mixture is obtained. Then add pepper, nutmeg, Parmesan cheese and salt.

For the vegetable filling:

Sauté a good base of onion with garlic (remove the garlic when cooked) and parsley (other fragrant herbs such as basil and marjoram etc may also be used). Add boiled spinach, Swiss chard and small green chard. Mince everything in a mincer until a very fine mixture is obtained, which is then added to the ricotta cheese and seasoned with Parmesan, salt, pepper and nutmeg.

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Description of the machine

The **P2 PLEASURE** machine, the basic unit consisting of a single kneading unit, automatic cylinder and ravioli maker, can also be supplied in a version with double reservoir, or double reservoir with extrusion unit, for producing all types of drawn pasta by the simple replacement of the die.

The ravioli maker with interchangeable moulds allows the production of separated ravioli of various shapes and sizes.

On request, the ravioli maker can be fitted with dies for the automatic production of various forms of tagliatelle, even a version with ribbonedged cut.

The length of cut is controlled automatically by means of a timer. The machine is equipped with fixed guards to protect the drives.

In any case, safety is assured by the machine's features and by the action of the operator on the appropriate controls (emergency button).



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SAFETY

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Tel. 0039.0141.27.60.11



Safety information

The safety officer shall inform the workers about the risks connected with the use of the machine.

Furthermore, the employer shall provide the information, instruction and training of the user as required by current legislation.

Failure to comply with basic safety regulations or precautions could cause accidents during machine operation, maintenance and repair. An accident can often be avoided by recognising potentially hazardous situations before they arise. The operator must be alert to potential hazards and be suitably trained, skilled and have the right tools for carrying out these tasks properly.

The improper use of the machine during operation or maintenance can be dangerous and cause serious accidents.

Do not run or carry out maintenance on the machine until the instructions have been read and understood.

IMPERIA & MONFERRINA S.p.A. shall not be held in any way liable for accidents or damages caused if the machine is used by persons who have not been sufficiently instructed or who have used it improperly, or if the safety standards and/or operating procedures contained in this handbook have been partially or totally ignored.

Safety precautions and warnings are given in this manual and are indicated on the machine itself.

If the operator does not heed these danger warnings, he/she could have an accident with serious consequences for both himself/herself and others.

The safety messages are highlighted with the following symbols:



Caution!

Ignoring these messages could cause injuries to the operator.



Warning!

Ignoring these messages could cause damage to the machine.



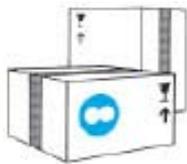
ENVIRONMENT messages are displayed before procedures that, if not observed, could cause harm to the environment.



IMPERIA & MONFERRINA S.p.A. is not in a position to foresee all possible circumstances involving a potential hazards.

Therefore the warnings indicated in this document and on the product are not all-inclusive.

Where tools, procedures working methods or techniques not expressly recommended by the **IMPERIA & MONFERRINA S.p.A.** company are used, it will be necessary to make sure there is no risk of personal injury or injury to other people involved.



Use only original IMPERIA & MONFERRINA S.p.A. spare parts.

IMPERIA & MONFERRINA S.p.A. declines all liability for the use of non-genuine spare parts.

Safety precautions



Caution!

The indications that follow cannot completely safeguard against all the hazards that could occur when operating on the machine; they are to be integrated with the common sense and experience of the operator, the only indispensable methods to avoid accidents.

In each section further safety rules are listed that are specific for the different operations.



Caution!

Unauthorised and/or unskilled persons are not to use the machine.

The operators who carry out the permitted activities on the machine are to receive appropriate instruction regarding the use of personal protection devices such as shoes, gloves, etc that protect them against risks deriving from the various activities.



Do not clean and do not lubricate moving parts.



Do not remove safety devices and/or protections.



If an unforeseen process or operation is carried out, following a procedure different to that indicated in the handbook, before proceeding, contact **IMPERIA & MONFERRINA S.p.A.**

If the Customer installs equipment on the machine that has not been supplied by **IMPERIA & MONFERRINA S.p.A.** it is necessary to check that the safety conditions required by Directive 2006/42 EC are maintained, and in any case **IMPERIA & MONFERRINA S.p.A.** shall not assume the responsibility for any problems that arise due to the use of this equipment.

The machine is not to operate in corrosive or explosive environments.



Keep the machine clean and free of extraneous material such as debris, oil, equipment or other objects that could damage functioning and injure the operator.

An oily, wet or greasy floor could cause accidents.

Immediately dry and carefully clean any liquid or grease that forms on the floor during interventions on the machine.

Do not use inflammable or toxic solvents for cleaning.

Avoid prolonged contact with solvents and do not inhale the vapours.

Do not use near naked flames or sources of heat; make sure there is adequate ventilation.

Long overloads or failures could cause overheating of the electric motors and electrical equipment developing harmful fumes; cut off the power immediately and do not approach the machine until the fumes have been dispersed by adequate ventilation.



In the case of fire, never use water sprays on the machine. Use CO₂ extinguishers.



The operator, any assistant technician and the maintenance engineer are to use the appropriate personal protection devices when operating on the machine.



When necessary, use head sets if the noise in the working area exceeds 85 dB (A).

Wear appropriate working clothes.

Long hair is to be gathered into a net, to avoid risks of entanglement.

Handle the blades supplied for the dough-cutter motor with care.

The skills for the various activities, for the machine operation are to be clearly established as indicated in the chapter "Professional figures enabled to operate on the machine".



The handbook is always to be on hand, so that it can be consulted to check the operating cycle any time doubts arise.

Should this handbook become lost or damaged, ask **IMPERIA & MONFERRINA S.p.A.** for a copy to replace it.

Structural damage, modifications, alterations or improper repairs can change the machine protection capacities, hence cancelling this certification.

Modification activities are only to be carried out by **IMPERIA & MONFERRINA S.p.A.** technicians.

During maintenance operations place on the machine, preferably on the control desk, a notice indicating "MACHINE BEING SERVICED – DO NOT POWER ON".



If a certain specialised technical operation for maintenance, inspection or repair is permitted, the persons carrying out the operations shall need to deactivate (completely or partially) safety devices, open or remove protective guards, and after the operations it shall be their precise duty to immediately restore the functioning of the safety components or the guards involved.

Do not touch electric wires, switches, pushbuttons, etc with wet hands.

During the operations to restore original work conditions, the relevant persons shall check at the end of the operating procedure that the normal safe machine working conditions are guaranteed especially the safety devices and protective guards involved in the operation.

The assigned persons shall also make sure that after the intervention no objects remain forgotten inside the machine, especially mechanical pieces, tools or devices used during the procedure that could cause damage to the machine or malfunctioning.

The persons assigned to maintenance, inspection and repairs, to safeguard themselves, before starting the activity shall cut out all the machine power supplies and take all the preventive safety measures, especially those which are to be carried out manually.

Do not replace, disengage or partially remove protections, safety devices and/or protection structures. This rule also applies to the warning indications provided on the machine.

The protections and safety devices are always to be kept in perfect efficiency; in the case of failure they are to be immediately repaired or replaced.



If, to be able to carry out a specific specialised technical operation on an electrical electronic device of the machine, it is necessary to work with the electric cabinets or control panels open and in exceptional cases with the main switch in ON position, be very careful and work with extreme caution. During these operations high voltages inside the electrical-electronic devices are a hazard for the life of the personnel.

Before restarting the process always pay maximum attention and make sure there are no operators still inside the machine operating area indicated by the danger signs.

Parts subject to wear due to the work they perform are to be checked and replaced as soon as they show significant signs of wear.

The manufacturer has designed and built the machine for a logical life, taking into account the normal use conditions of the Customer; however, it is necessary to periodically check all these components very carefully.

If “mechanical cracks” and/or permanent or cyclic structural deformations are found, contact the manufacturer or skilled technicians immediately, who will take the necessary action.

Safety plates and symbols

There are a number of safety plates on the machine bearing symbols and/or safety messages.



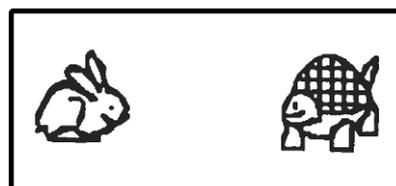
Caution!

Make sure that all the safety symbols can be clearly read.

Clean them with a cloth, soap and water. Do not use solvents, diesel or petrol.

Replace damaged, missing or hard-to-read plates obtaining new ones from the IMPERIA & MONFERRINA S.p.A. re-seller.

If a plate is on a part to be replaced, make sure the new piece has a new plate attached to it.





Safety devices



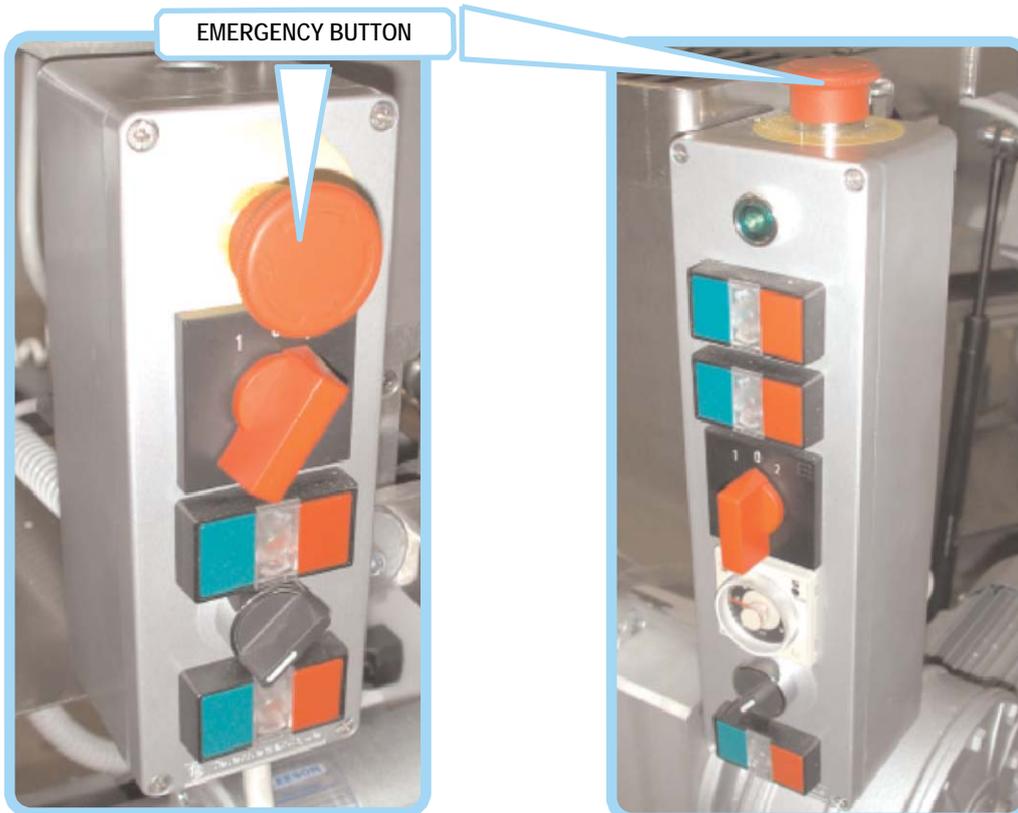
Caution!

The components indicated are particularly important for safety.

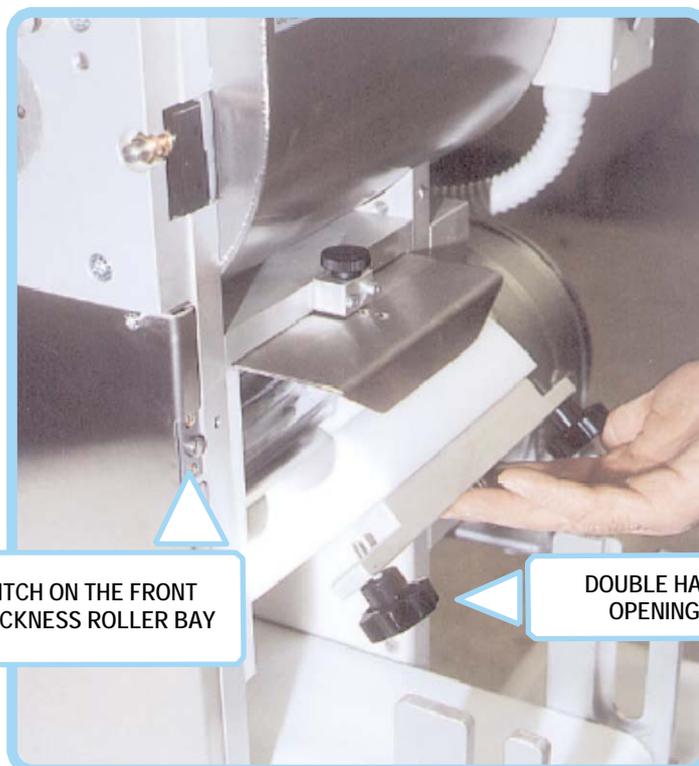
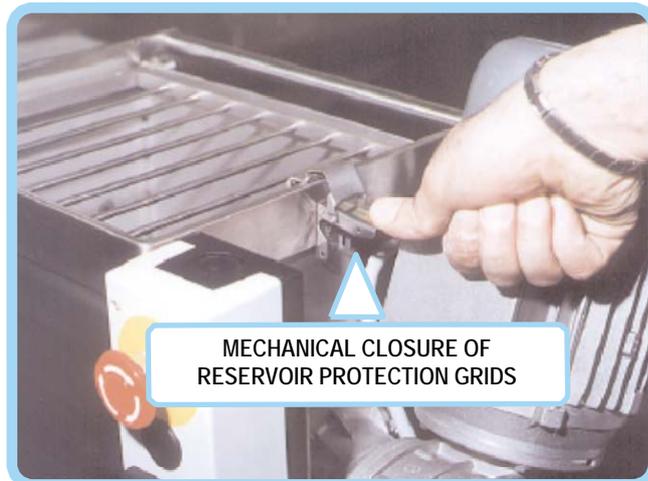
In the case of failure or wear, they are to be replaced with spare parts supplied or authorised by the manufacturer.

During machine use all the protections are to be correctly mounted.

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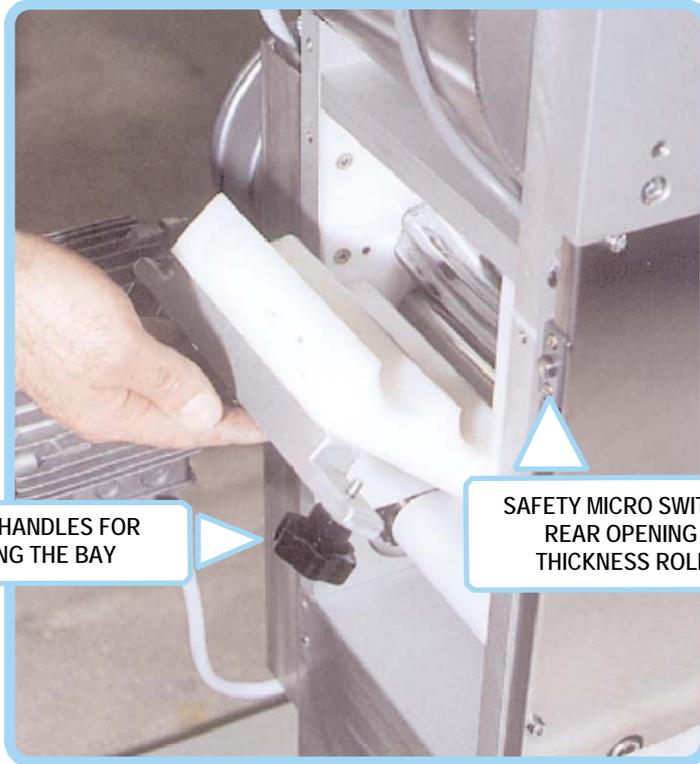


BLOCKING OF WHEELS



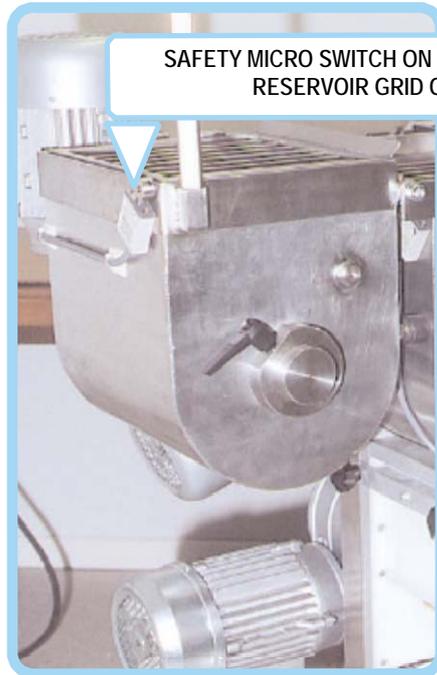


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DOUBLE HANDLES FOR
OPENING THE BAY

SAFETY MICRO SWITCH ON THE
REAR OPENING OF THE
THICKNESS ROLLER BAY



SAFETY MICRO SWITCH ON THE SECONDARY
RESERVOIR GRID OPENING



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Thermal relays

Located inside the electrical box there are devices that prevent the motors from overheating.

When one of these devices trip out, it must be reset as follows:

- Turn the main switch to the “0” position.
- Open the electrical box; each relay has a button that jumps outwards when the device is activated.

To reset the device, press the reset button located next to it. If the reset button does not remain inserted, wait a few minutes for the device to cool down and then press the reset button again.





Fuses

Located inside the electrical box for protection of the machine's auxiliary circuit; any power surge could cause the fuses to burn out. When a fuse has burned out, proceed as follows:

- Turn the main switch to the "0" position.
- Open the electrical box; with the aid of a tester, identify the burned out fuse and then replace it with another of the same amperage.



Caution!

Repeated burning out of the fuses could be caused by problems within the electrical unit; in this case contact the Technical Service Department.





Residual risks

The accurate risks analysis carried out by the manufacturer and filed in the technical folder has eliminated most of the risks connected to the use of the machine.

The manufacturer recommends that the instructions, procedures and warnings contained in this handbook are scrupulously followed, as well as the safety standards in force, including the use of the foreseen protection devices, both those integrated in the machine and those for personal protection.

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Caution!

As a precautionary measure for safety the correct functioning of safety devices is to be periodically checked.

It is strictly forbidden to make any type of mechanical, electrical or pneumatic modification, to avoid creating additional hazards and risks that have not been foreseen.

After carefully studying all the possible risks related to the machine use, all the necessary solutions have been applied to eliminate the risks and limit the hazards for the exposed persons.

On board the machine, although fitted with these safety systems, the following residual risks remain, that can be eliminated or reduced by taking the relevant precautions:



Caution!

Before starting any maintenance activity, the operator is to carry out the following procedure.

Risk of impact, crushing, shearing following access to moving parts, after removal of fixed protections or bypassing safety devices.



Caution!

Exposure of persons to moving parts can create seriously hazardous situations. It is strictly forbidden to start the machine without the protections provided correctly installed. It is strictly forbidden to tamper with, by-pass or elude guard interlock devices.



Caution!

Only skilled and qualified persons are permitted access into the electric cabinet.

Possible risks during maintenance operations are many.

During maintenance activities the operators are to carefully follow the indications of this handbook, to avoid human errors when operating on the machine during maintenance or when mounting components.



Caution!

Do not carry out maintenance operations in parallel. A wrong action on the part of one maintenance engineer could endanger the safety of the other.



Caution!

Errors in mounting of components can cause the machine to become insecure during normal use.

Directives applied

The following directives are applied to the machine described in this handbook:

- **2006/42/EC** Machines Directive
- **2004/108/EC** Electromagnetic compatibility Directive
- **2006/95/EC** Low voltage Directive

Harmonised technical standards

The machine has been designed and tested in conformity with the “essential health and safety requirements” of annex 1 of European directive 2006/42/EC.

The standards used as reference for the design, realisation and inspection of the machine are listed in the technical folder archived in **IMPERIA & MONFERRINA S.p.A.**



INSTALLATION

GB



If in doubt do not proceed!

Telephone the *IMPERIA & MONFERRINA S.p.A.* After Sales Service immediately.

Tel. 0039.0141.27.60.11



Positioning



Warning!

Before commencing with the placement of the machine, a careful visual inspection must be carried out to identify any damage that could have occurred during transport.

In the case where one or more components show signs of damage, it is essential to halt the installation, inform the manufacturer about the fault discovered and agree on a plan for corrective action with him.

If it is properly blocked on the two wheels in a stable manner while operating, the machine will function within the anticipated technical parameters.

The four pivot wheels facilitate the transportation and movement of the machine, which can only occur on a flat surface and with due care to avoid the risk of overturning.

Before moving the machine, the two front wheels must be unblocked and the power cord unplugged from the outlet.

Instructions for the proper slinging and lifting of the machine are supplied directly

by "La Monferrina" to those persons authorised to carry out such operations.

When cleaning, the persons assigned to these operations are to be equipped with the necessary personal protection devices.



Caution!

Electrical connections are to be carried out by skilled experts who have been appropriately trained.





Installation



Caution!

Connection of the equipment to the electricity supply system must be carried out by specialised persons, who must observe the legal requirements for safety and accident prevention in the workplace. When connecting the machine to the electricity supply, the necessary personal protective equipment must be worn.

The machine is not equipped with a plug for connecting to the electrical outlet and it is therefore the electrician's task to fit a suitable plug.



Avvertenza!

“La Monferrina” denies any responsibility for incorrect connections or for plugs that are inadequate for the system.

The electrical connection to the mains supply must be carried out in accordance with the safety regulations in force in the country where the machine will be used.

The machine installation power and feed voltage are as follows:

380V / 50Hz three-phase with earth.

La Monferrina

Via A. Vespucci, 38/40 - 14100 ASTI Italy
Tel. (0141) 27.32.32 - Fax (0141) 27.54.85

Model

Serial Number V

Year Hz

— CE —

Ensure that the voltage of the power outlet matches that shown on the machine identification

Fit a plug that complies with the EC directive.

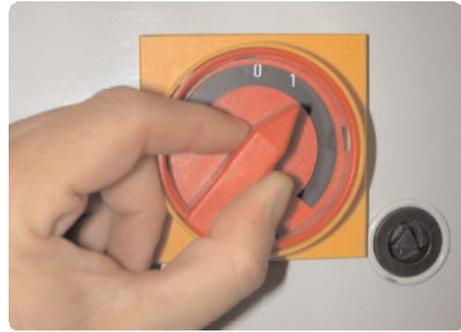
Insert the multipolar plug into the power outlet.





GB

Switch the main switch to the “I” position.



Turn the selector dial to position 1 and check that the product exit conveyor belt moves towards the outside (in the direction shown by the arrow).



If the conveyor belt moves in the opposite direction, press the “STOP/EMERGENCY” button 3 immediately thereby stopping the machine.

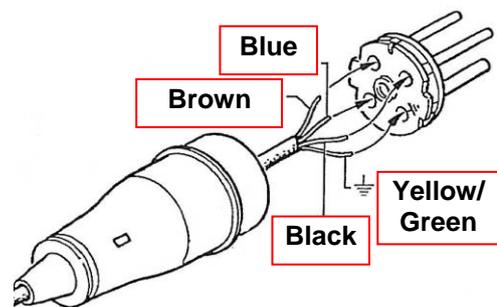
STOP



Remove the power supply plug from the socket and swap the position of the brown and black wires as shown in the figure.

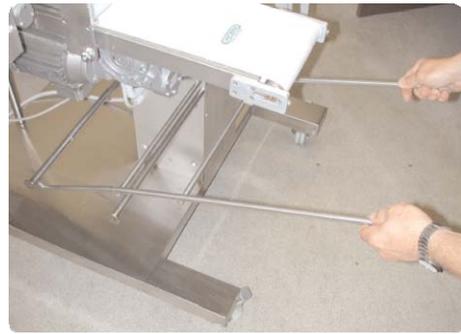
The yellow-green ground wire must never be removed.

You are recommended to get an electrician to perform this operation.





Positioning of the brackets.



Positioning of the sieves.



GB

Safety microswitch check

Periodically check the correct functioning of the safety microswitch that must stop the machine when the Plexiglas tank cover is lifted.

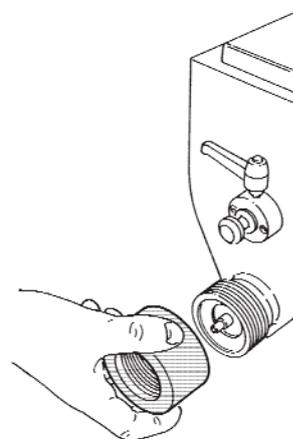
If, when the Plexiglas cover is raised, the machine fails to stop it, will be necessary to call in an electrician to urgently get the microswitch working again.

To release the red safety button, it must be pulled outwards.

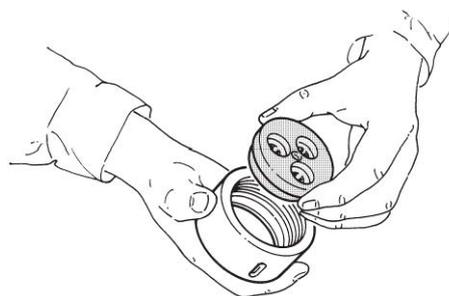


Assembly of the die and pasta cutter blade

Unscrew the ring nut of the die housing.

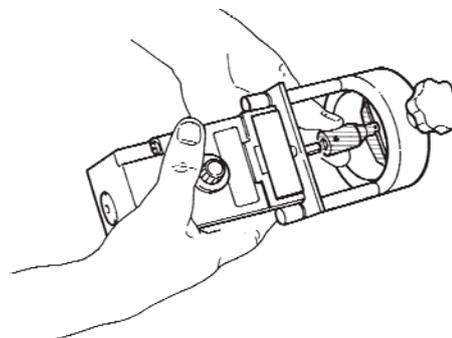


Insert the desired die into the ring nut and re-fit the unit into the machine.



When wanting to produce short pasta, select an appropriate pasta cutter blade from amongst the three types supplied.

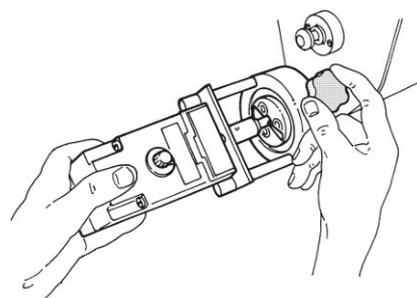
Fit the supplied spring into the cutter and fit the cutter onto the lug located on the pasta cutter motor.



Caution!

Handle the pasta cutter blades with care.

Fit the pasta cutter motor onto the machine, locking it in place with the knob, as shown in the figure





FUNCTIONING

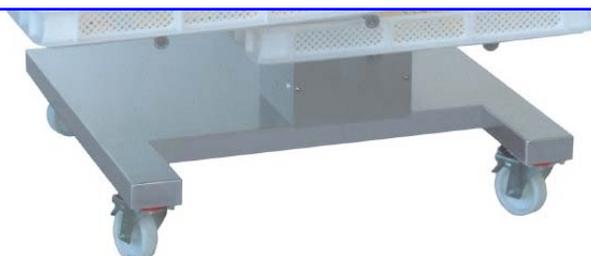
GB



Caution!

The use of the machine by unauthorised and/or untrained persons is strictly forbidden.

Operators who carry out the permitted activities on the machine are to receive adequate instruction concerning the use of personal protection devices such as shoes, gloves, etc. so that they can avoid all the risks that are connected with the various activities



If in doubt do not proceed!

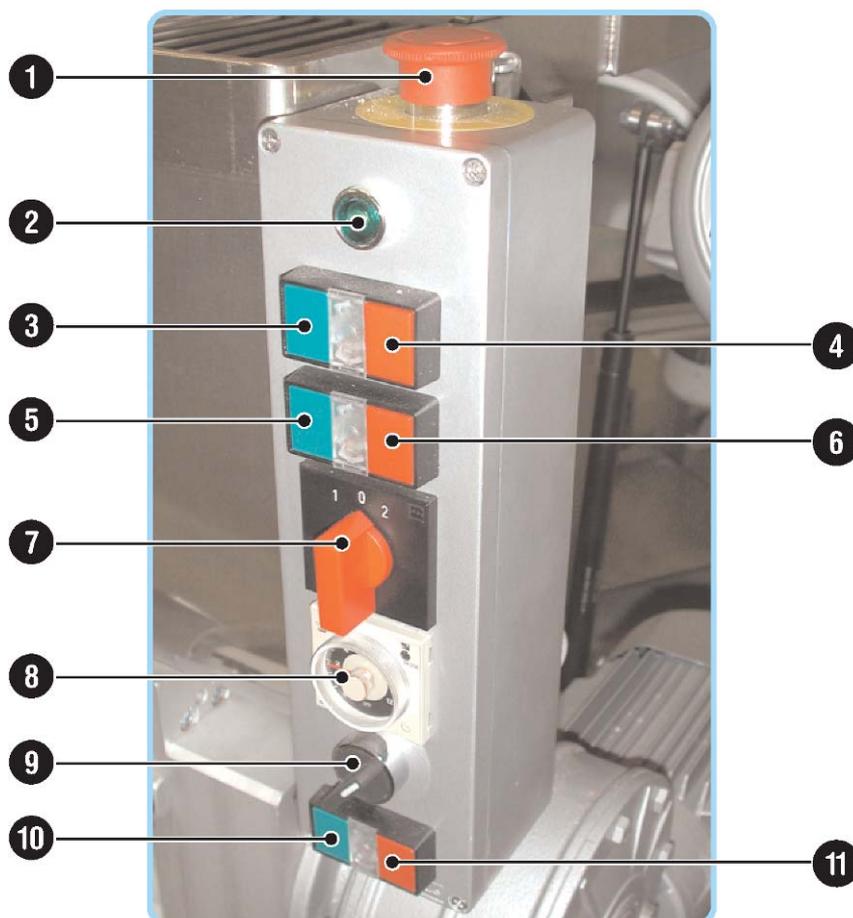
Telephone the *IMPERIA & MONFERRINA S.p.A.* After Sales Service immediately.

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Description of the machine's controls

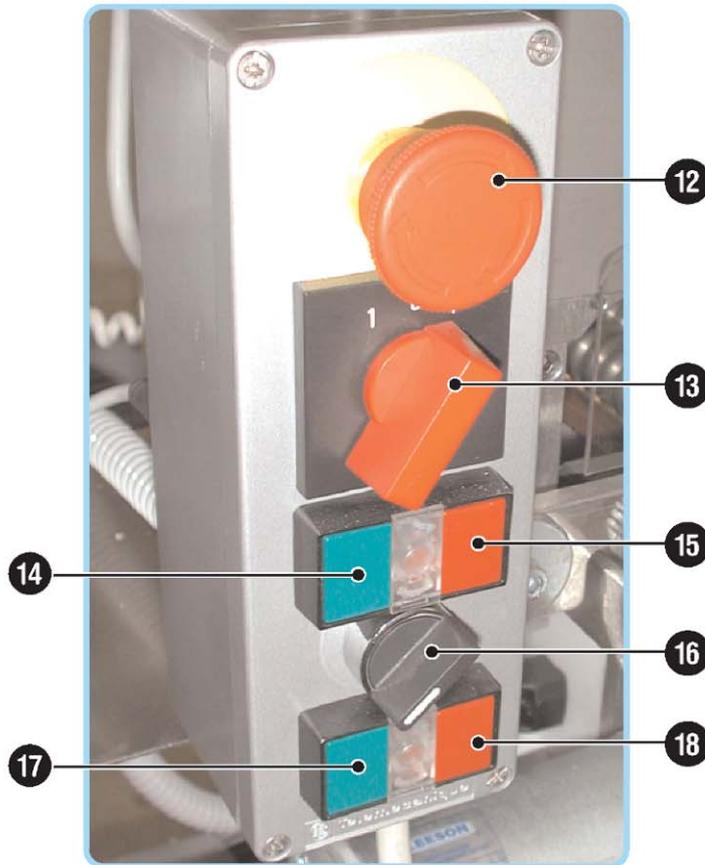
GB



- 1 Red, mushroom shaped emergency button
- 2 Green warning light for LIVE VOLTAGE
- 3 Green button to START UPPER RESERVOIR
- 4 Red button to STOP UPPER RESERVOIR
- 5 Green button to START LOWER RESERVOIR
- 6 Red button to STOP LOWER RESERVOIR
- 7 Selector for DIRECTION OF ROTATION OF LOWER RESERVOIR (ravioli maker and kneader)
- 8 Timer for LENGTH OF CUT
- 9 CUT selector
- 10 Green button to START PASTA SHEET ROLLERS
- 11 Red button to STOP PASTA SHEET ROLLERS



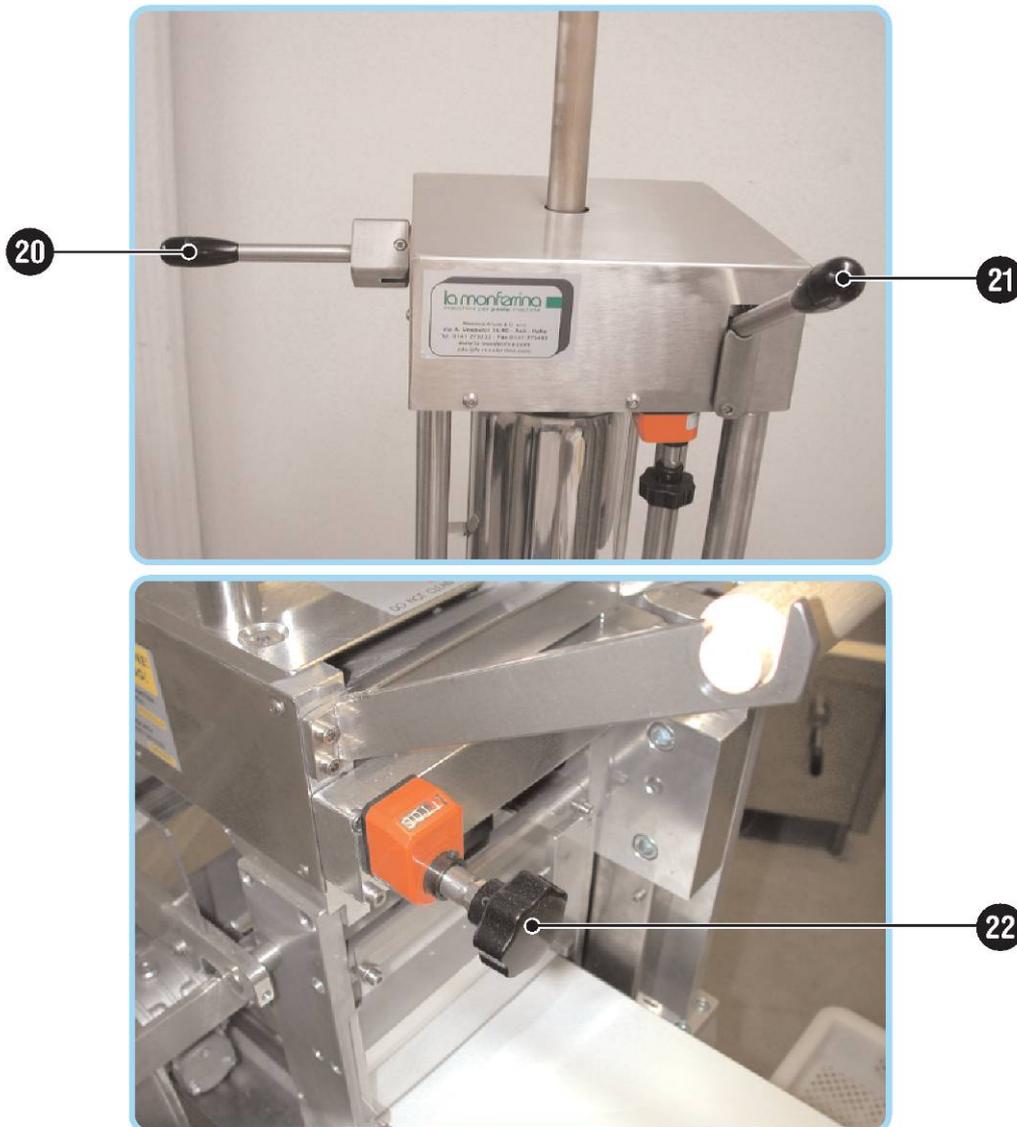
GB



- 12 Red, mushroom shaped emergency button
- 13 Selector for ROTATION OF UPPER RESERVOIR (knead-draw)
- 14 Green button to START UPPER RESERVOIR
- 15 Red button to STOP UPPER RESERVOIR
- 16 Selector for CUTTING PASTA
- 17 Green button to START LOWER RESERVOIR
- 18 Red button to STOP LOWER RESERVOIR
- 19 Main switch



GB



- 20 Lever for insertion of filling
- 21 Lever for manual lowering of filling piston
- 22 Hand wheel for calibration of pasta sheets



23 Hand wheel for regulation of quantity of filling.

Production of ravioli

- Move the cutting unit to the “full back” position by means of the applicable handle.





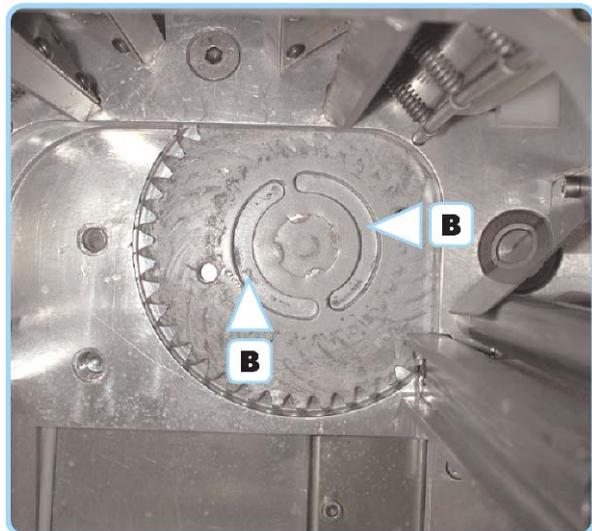
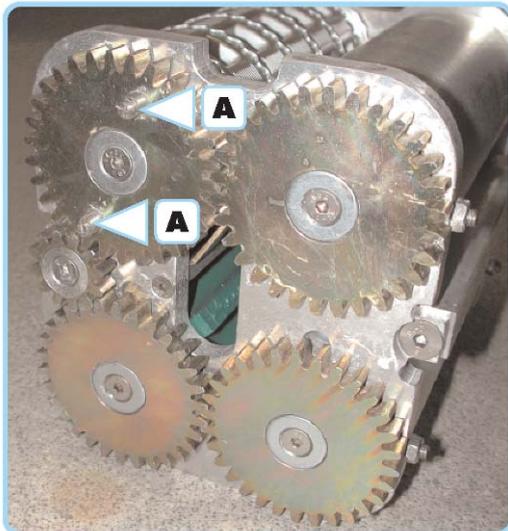
GB

- Lift the transparent plexiglas guard and insert the die.



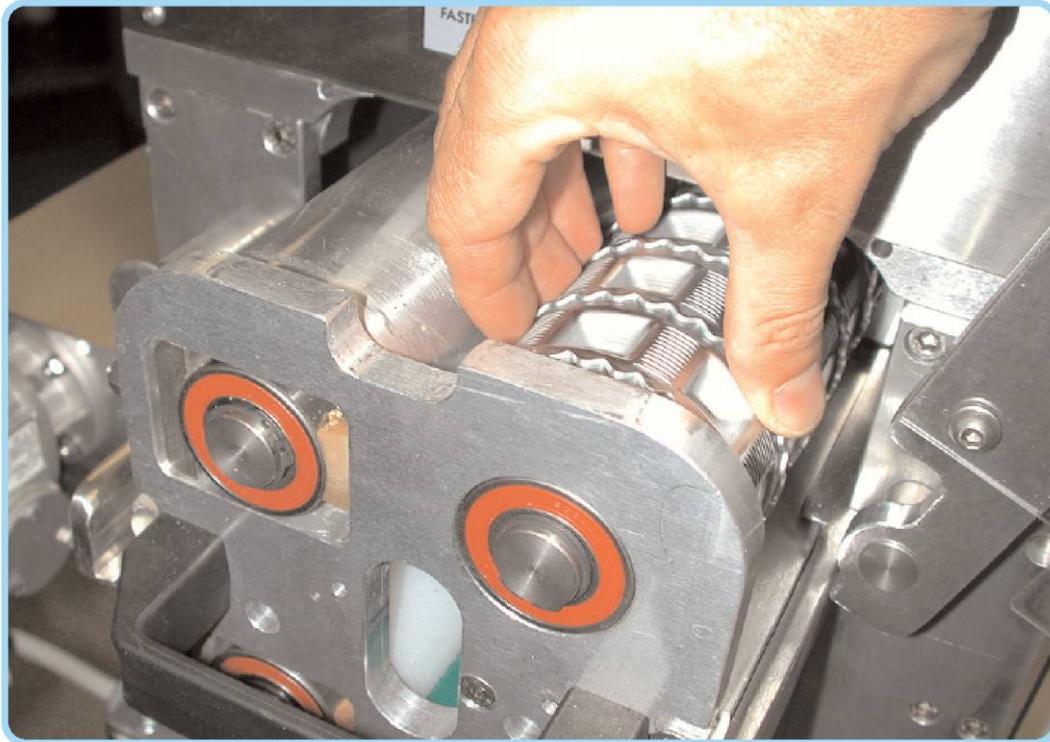
Warning!

The two pins (A) must slot into their respective seats (B) on the toothed wheel located inside the bay.





- The moulding roller can be rotated manually to facilitate the alignment operation.



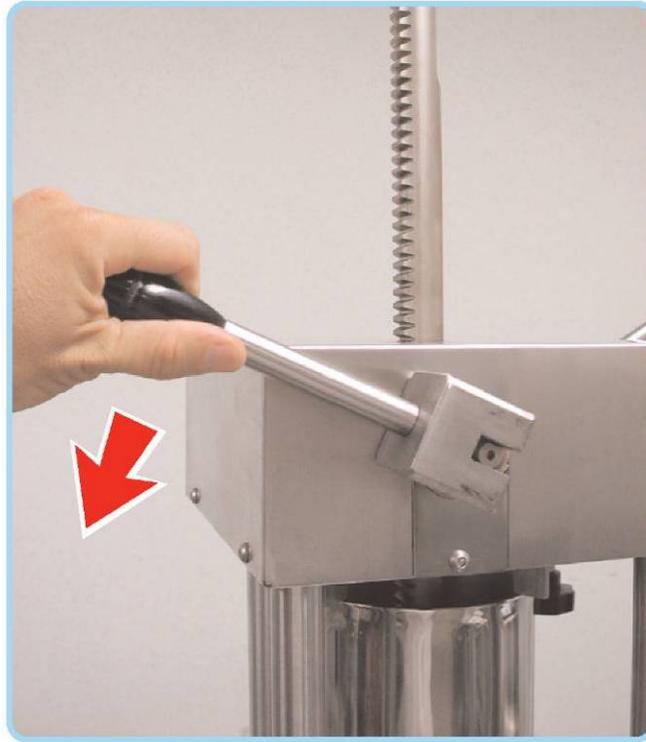
- Close the guard. (The guard will only close completely if the die has been correctly inserted in its bay)



GB



- Raise the filling piston completely by turning the lever in an anticlockwise direction.



- Remove the container.





- Insert the appropriate conveyor for the type of die fitted.



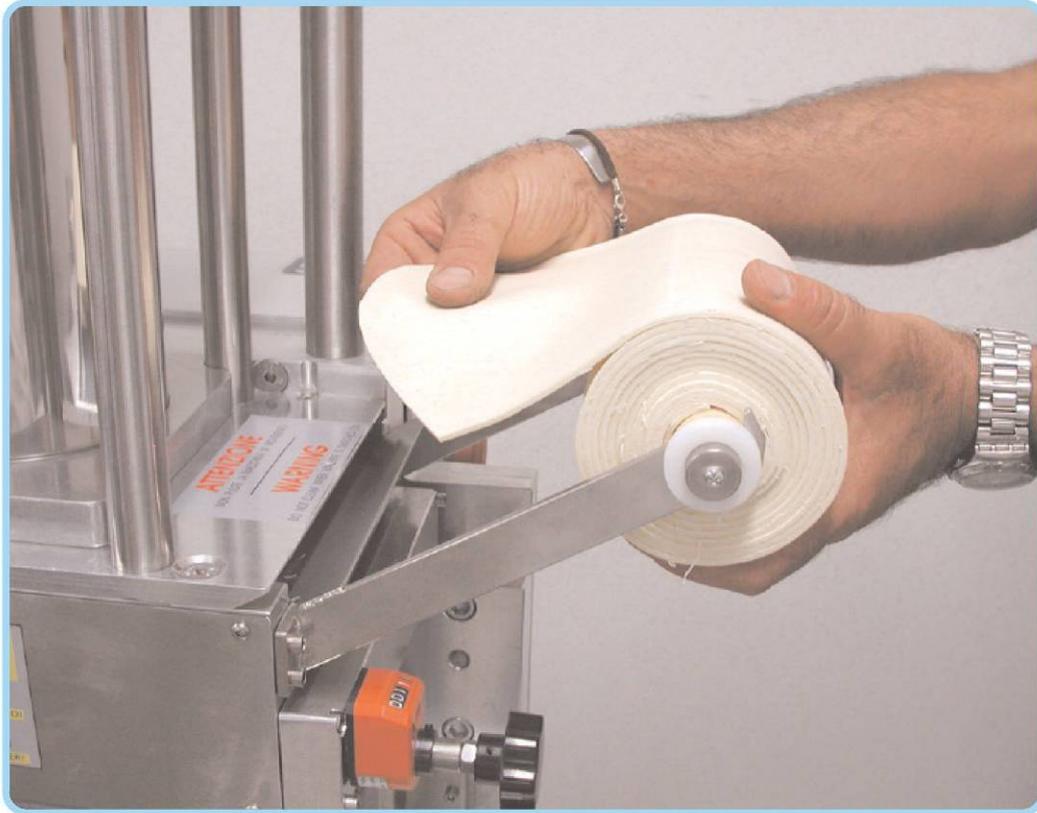
- **Example:** die with 5 shapes, conveyor with 5 holes.



GB



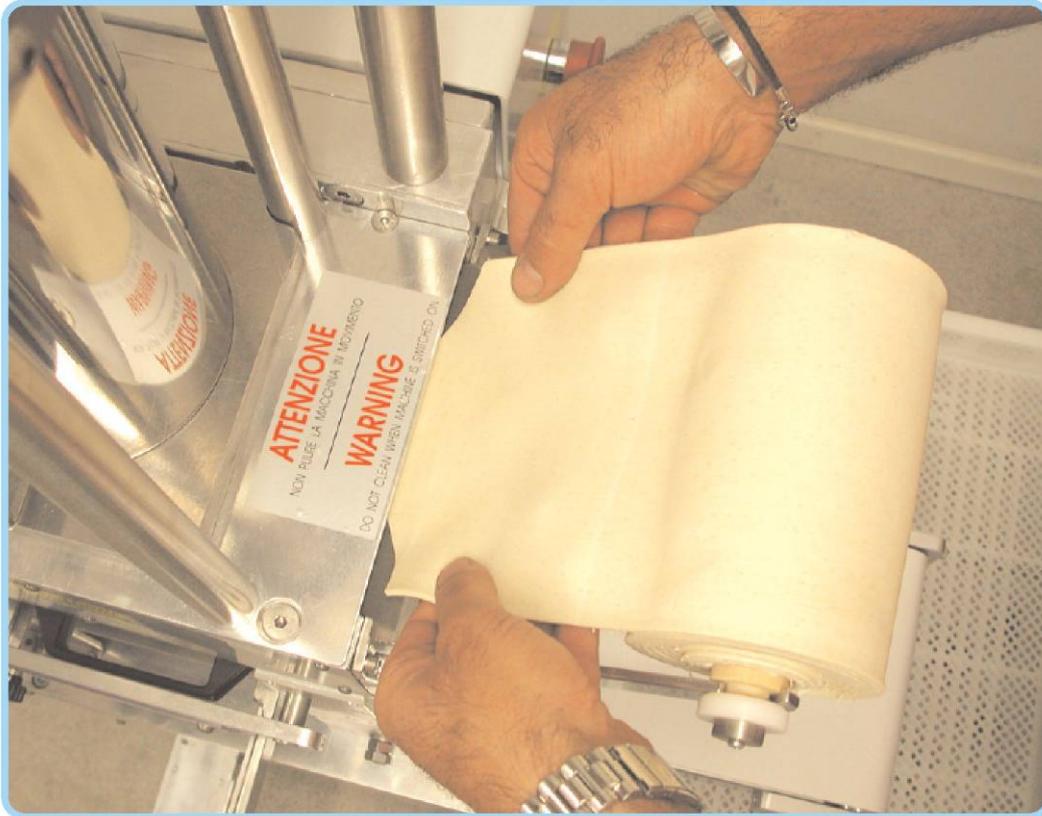
- Fill the container with filling for ravioli.
- Prepare the pasta sheets and roll them onto two rolling pins.



GB



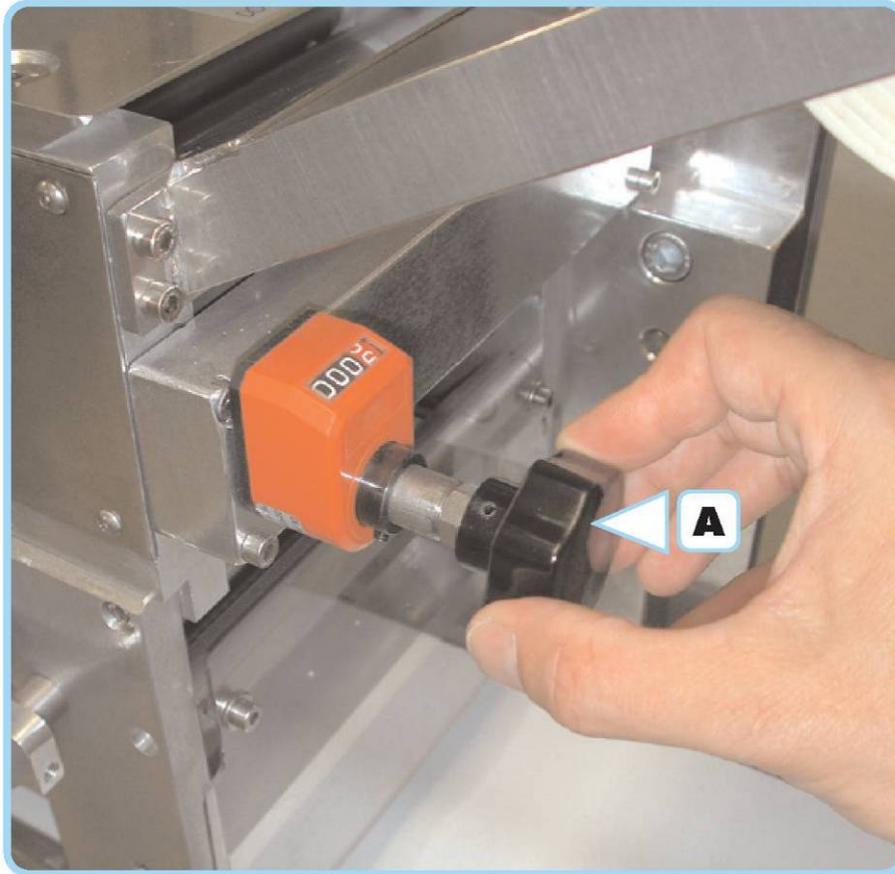
- Place the two rolling pins with the pasta sheets into their respective seats and fit the edges of the pasta sheets inside the seats.



GB



- Adjust the size of the pasta sheets by turning the knob (A). The display should show 0006.



GB



- Should it be necessary to adjust the thickness of the pasta sheet, extract the die from the machine and loosen the two nuts with a suitable spanner.

Using an Allen wrench, turn the grain clockwise to bring the rollers closer together or anticlockwise to move them further apart.

Tighten the nuts.

Using a feeler gauge, check that the rollers are equidistant on the left and right hand sides

GB



- Switch the main switch to the 1 position.





GB

- Turn the selector to 1.



- Press the green START button.



- Through the spy hole (A), check the passage of the pasta sheets through the discharge point.





- Check that the first few ravioli (with no filling) coming off the conveyor belt are positioned correctly.



- Fill the container with the prepared filling and place it in the machine.



GB



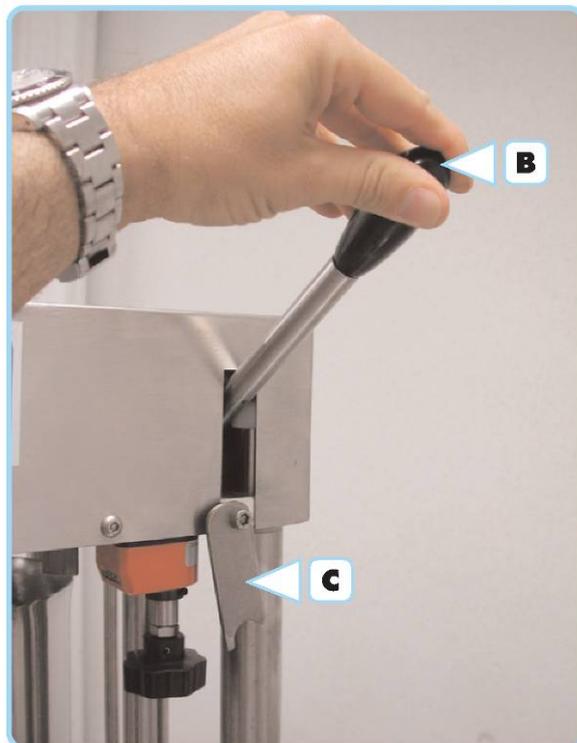
- Turn lever (A) in a clockwise direction and press the filling down gently.



- Turn the lever to a horizontal position.



- Lift lever (B) to make the retainer (C) go down.



- Manually compress the product by turning the lever (B) until the filling becomes visible through the spy hole (D).





- The amount of filling in the ravioli can be adjusted by turning the knob (A).



If the filling hollow is not centred, stop the machine when the grub screws on the cutting roller of the die are visible.

Insert the allen wrench in the grub screws, loosen them and turn the roller upwards if the filling hollow is too low or downwards if the hollow is too high.

Remember that when stuffed ravioli are produced, the filling hollow will tend to lower itself by one millimetre.





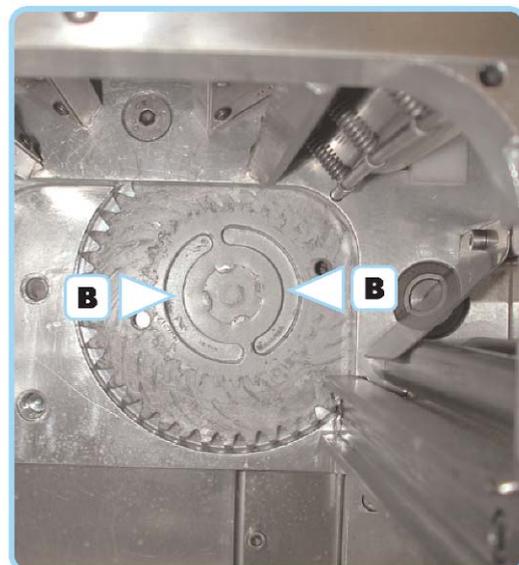
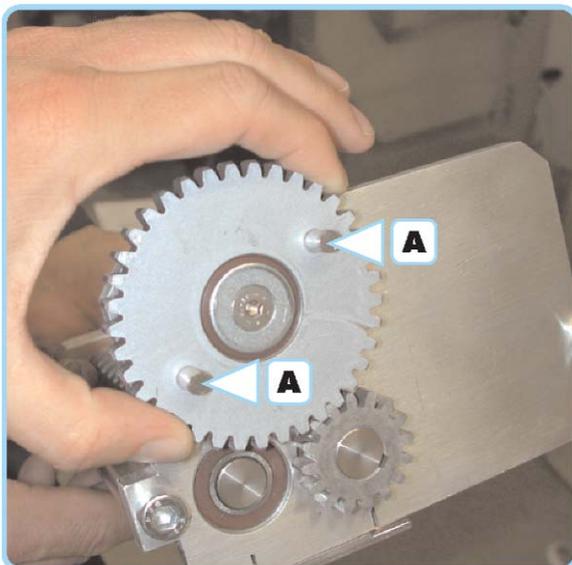
Production of Tagliatelle

- Insert the die for tagliatelle.



GB

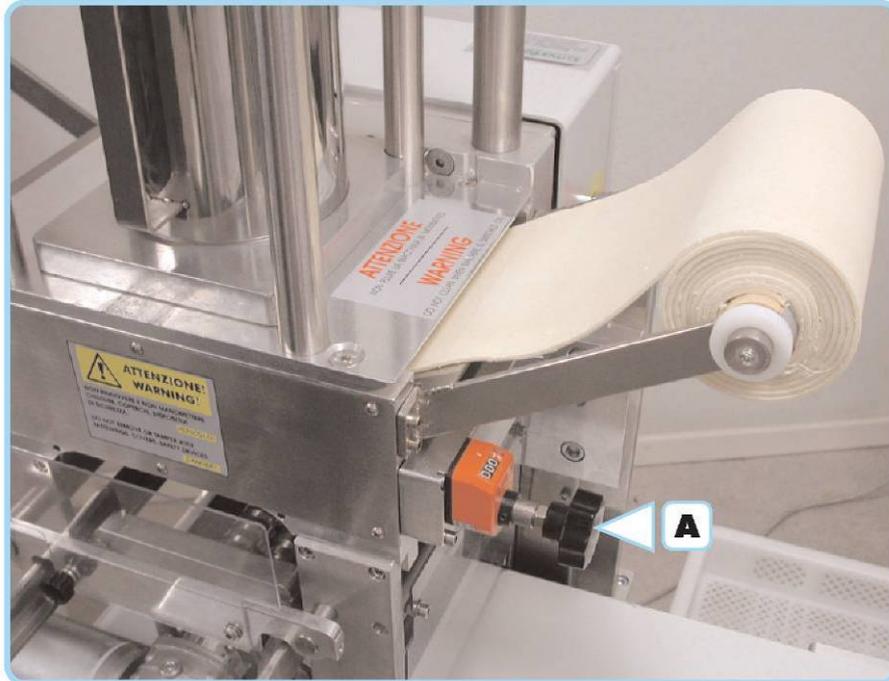
- Ensure that the two pins **(A)** on the toothed wheel of the die slot perfectly into their respective seats **(B)** situated on the internal toothed wheel.



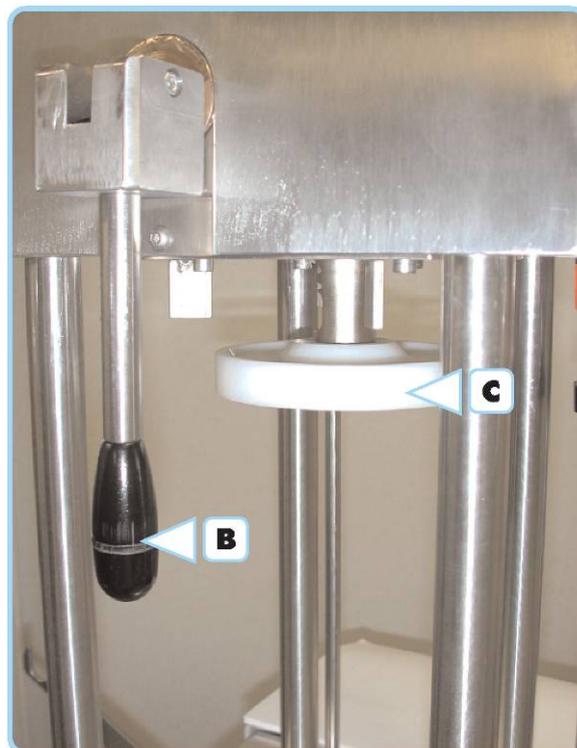


Note: the correct seating of the die inside the bay will be indicated by a microswitch.

- Load the pasta sheets only from the right hand side and turn the hand wheel **(A)** to adjust the size.



- Act upon lever **(B)** to move the piston **(C)** downward about 3 cm.
- Finally, unblock lever **(B)** and position it as shown in the diagram.

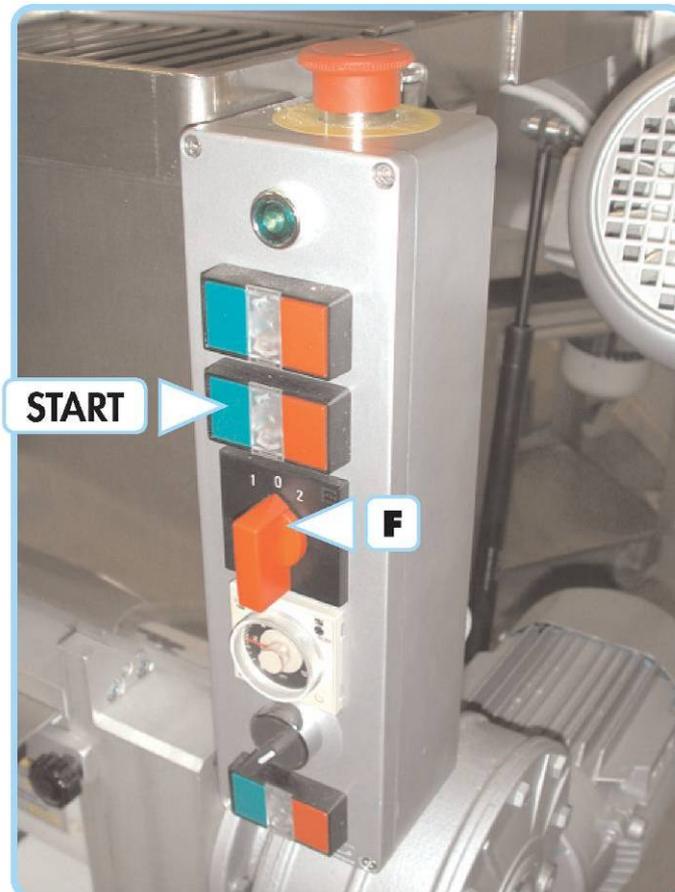




- Lever **(D)** must be blocked in the up position using the stop **(E)**.



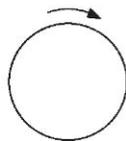
- Turn the selector **(F)** dial to position 2 and press START to commence production of tagliatelle.



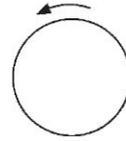


GB

- Adjust the cutting length by setting the timer **(G)**.



LONG
TAGLIATELLE



SHORT
TAGLIATELLE

- Activate the cutter unit by turning the selector dial **(H)** to the ON position (to the right).





Use of the extrusion unit



GB

To produce long pasta (tagliatelle, spaghetti, etc.):

- Place the sieve provided on the appropriate support.
- Turn the selector handle (13) to the right, from the “KNEAD” position to “DRAW”.
- Press the “RUN” button (14).
- Proceed to cut the pasta emerging from the die using a spatula or a knife.
- Plug the “FAN” plug into position 1.
- The fan will start running, partially drying the pasta emerging from the die.
- Press the button (15) to stop.

To produce short pasta:

- Place the sieve provided on the appropriate support.
- Mount the pasta cutter motor onto the die with the selected length-cutting blade, locking it in place with the safety knob.
- Turn the “PASTA CUTTER” selector (16) to the right - to position 1, starting the pasta cutter motor.
- Turn the handle of the selector (13) to the right, to the “DRAW” position.



- Press the “RUN” button.
- Plug in the “FAN” plug.
- The fan will start running, partially drying the pasta emerging from the die.

Note: using the handle on the motor, the rotation speed of the pasta cutter motor can be adjusted, changing the cutting length of the emerging pasta.



Caution!

Never run the machine with the selector (13) turned to the right, to the “DRAW” position before having kneaded the flour.

Serious mechanical damage can be caused by this action.

The buttons **(17 START RAVIOLI MAKER)** and **(18 STOP RAVIOLI MAKER)** are duplicate controls for the ravioli maker.



MAINTENANCE

GB



Warning!

Special maintenance on the machine is only to be carried out by technicians of the manufacturer.

The manufacturer recommends that a servicing ticket is used to inspect the machine every two years and ensure the safety conditions.



Warning!

The maintenance engineer is to enter in the log book attached all operations carried out on the machine.



If in doubt do not proceed!

Telephone the **IMPERIA & MONFERRINA S.p.A.** After Sales Service immediately.

Tel. 0039.0141.27.60.11



General information

This section describes the inspection and routine maintenance operations that are indispensable to ensure correct functioning of the machine.

Any other intervention required to correct failures or operative anomalies are to be specifically authorised by the manufacturer.

In such cases always indicate the identification data (model, serial number, identification of electrical, pneumatic systems etc.).

For important repairs it is advised to contact the manufacturer who, by means of the specialised technicians with all the technological experience of the original construction in the plant, can always offer advice and promptly intervene.

For the maintenance or replacement of commercial components installed on the machine, follow the instructions supplied directly from the Manufacturers and contained in their specific handbooks or catalogues.

General safety rules

Maintenance work is to be carried out by skilled technicians who have been trained in the specific sectors that for this machine are:

- Mechanical maintenance
- Electrical systems maintenance

It is the specific task of the Safety Officer to ensure the professional qualifications and capability of these persons.



Before starting a maintenance operation, the safety officer shall::

- Free the area of materials and persons not involved in the work in the area.
- Make sure that the equipment required is available for the maintenance engineer and that it is in good condition.
- Check there is sufficient lighting and if necessary provide portable 24 Volt lamps.
- Make sure that the maintenance engineer is equipped with the relevant personal protection devices needed for the specific job (gloves, goggles, shoes, etc.).
- Make sure that the maintenance engineer has carefully read the instructions contained in this handbook and is familiar with the machine functioning.

Before starting the relevant job, the maintenance engineer shall:

- Cut-out all power supplies (electrical, hydraulic, pneumatic) and block the machine in safety condition.

**Caution!**

The main switch is to be set on “0” and fastened with a padlock to prevent accidental re-powering.

The key of the padlock is to be kept by the maintenance engineer..

Upon termination, and before putting back into service, the maintenance engineer is to check the complete work cycle, the functioning of the safety devices and that the protections are intact.

Work on motors or other electrical components is only to be carried out by the Maintenance Engineer who has been specifically trained and authorised by the Safety Officer.

**Caution!**

After every maintenance operation the Safety Officer shall check the machine safety conditions and protection devices.



During maintenance operations it is recommended to affix on the control panel a notice warning not to power-on or carry out movements

Maximum reliability and minimum maintenance costs of the machine are the result of a planned and scrupulously followed maintenance and inspection schedule to be observed during the entire life of the machine.

Always scrupulously observe the set maintenance time scales and arrange the operations according to the specific needs, taking into consideration the machine production cycle.

Always use equipment that is in perfect condition and specifically for the operation to be carried out. The use of inappropriate and/or inefficient equipment can cause serious damage.

Never intervene, unless specifically required to remove a failure, on regulations and positions of limit microswitches: tampering with them can cause serious damage to the machine.

Mark the separate parts when disassembling, to ensure correct reassembly.

Before fitting a group, always spread a thin film of oil on internal parts and matching surfaces. Replace all seals and gaskets with original spares before mounting the components.

Always make sure there is ground connection and that it is in compliance with current standards.

Before starting-up the machine always make sure that the maintenance operators are at a safe distance and that no tools or material has been left near the machine.



Cleaning



Before starting inspection or maintenance operations, remove all dirt and grime from the machine by suction and with appropriate solvents. Do not use jets of compressed air that could accumulate the dirt and cause injury to persons in the cleaning area.

Clean persistent grime with soft dry cloths that do not fray or with a soft silk bristle brush.

Use personal protection devices.

Purchase only solvents that are for manual use.

Check the characteristics declared by the manufacturer.



Caution!

Use cleaning solvents away from naked flames and ensure that the environment is well ventilated.

Avoid prolonged exposure to solvent vapours.

Ignoring these rules could cause harm to the operators.

Maintenance on mechanical components

To remove and handle heavy elements (more than 30 Kg) use hoists, cranes or overhead travelling cranes.

If detailed drawings, break-downs, etc are not available, mark each element and make a note of its location so as to avoid errors at reassembly.

Always use wrenches of the appropriate size.

Immediately replace screws and bolts that show signs of wear on threads and seats for wrenches.

When loosening or tightening, do not apply pipes or extensions to the wrenches to increase the force. If torque wrenches and special tools are used, check that the calibration is appropriate for the component.

Pay particular attention when using pneumatic or hydraulic tools.



Caution!

Always wear personal protection devices such as gloves, safety shoes, etc.



Maintenance on electrical systems



Before working on electrical components, cut out the power supply upstream of the equipment (power supply line main switch).

Always carefully check insulating coverings, terminal boards and seal of enclosures.

These are always to conform with the protection class declared by the manufacturer.

Immediately replace damaged seals and sheaths.

Check and if necessary restore identification labels and straps of wires and components, following the indications on the diagrams.

Make sure that hazard warnings and information plates required by current standards are perfectly legible and well fastened. Do not use compressed air to clean. Use suction devices only.

For replacement of faulty control components always use items that conform with the specifications of Standard EN 60204-1 (colours, size, protections, etc.).

Electric wires, especially if exposed to heat, humidity and/or low temperatures lose their insulation properties over time.

With the aid of skilled technicians, check intactness.

All electrical components with mechanical parts in movement during the work cycle (pushbuttons, selector switches, relays, etc.) are guaranteed by the manufacturer for a certain number of cycles, high, but always limited.

Check the condition frequently and consult skilled technicians for periodical replacement within the guaranteed life time.



Advice regarding maintenance

Operations to be carried out during maintenance work

When carrying out maintenance operations pay attention to all the signs that could precede a failure:

- traces of wear;
- loose fittings or connections;
- oxidised contacts;

Cutting down dead time after a failure

It is to be borne in mind that maintenance operations carried out correctly can cut down the dead time to a minimum after a failure.

A repair made at the right time avoids further deterioration.

Wherever possible, use original spare parts and carry out the repair of the components with precision in your plant or send the part for repair to its manufacturer.

Maintenance



Caution!

Before starting any maintenance or cleaning operations use the individual protection means such as, gloves accident safety shoes, etc. according to the work to be carried out.

Before starting any type of maintenance work, cut out and lock all energy sources and block the machine safeties. Place a warning signboard near the main switch. "MACHINE BEING SERVICED DO NOT POWER ON".

It is forbidden to people in charge of the cleaning to remove the machine's protection devices.

Cleaning staff may not remove any of the machine's protection devices. The machine must be cleaned at the end of each working day.



Avvertenza!

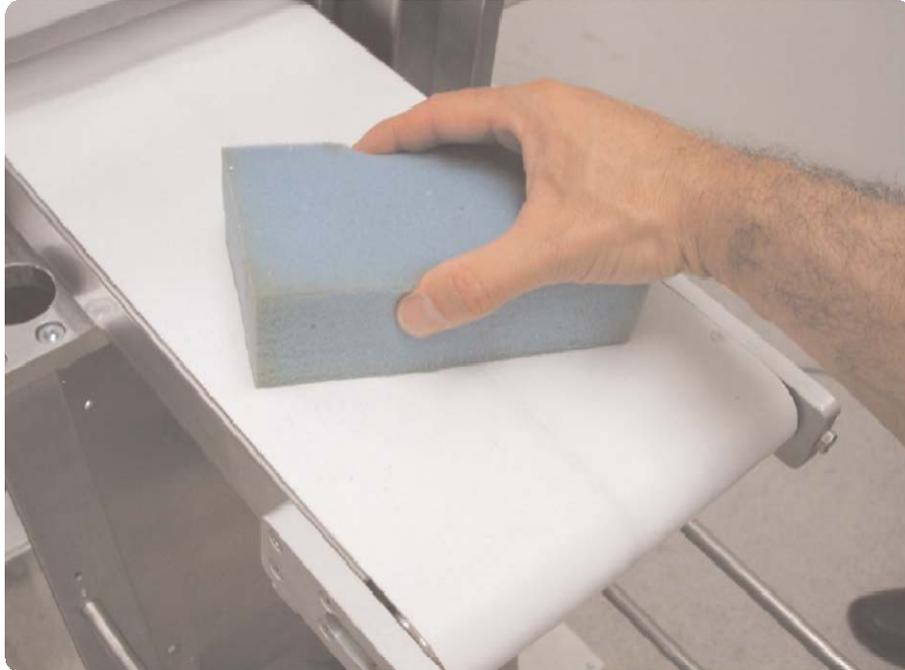
Do not wash the die under running water or in a dishwasher.

If necessary, turn the die manually and clean it with a cloth.





- Clean the product discharge belt with a sponge slightly dampened with water only.



- Remove any working residues left behind in the machine.



GB



- Wash the conveyor and the filling container under running water and clean the disk of the piston with a damp sponge.
- The ravioli mould **must never** be washed.

Note: For hygiene reasons, all parts that are in contact with the filling and the pasta sheets must be carefully cleaned.



Warning!

It is advisable not to leave any filling in the conveyor after use.

GB



- All working residues must be removed from the machine with the aid of a paintbrush.

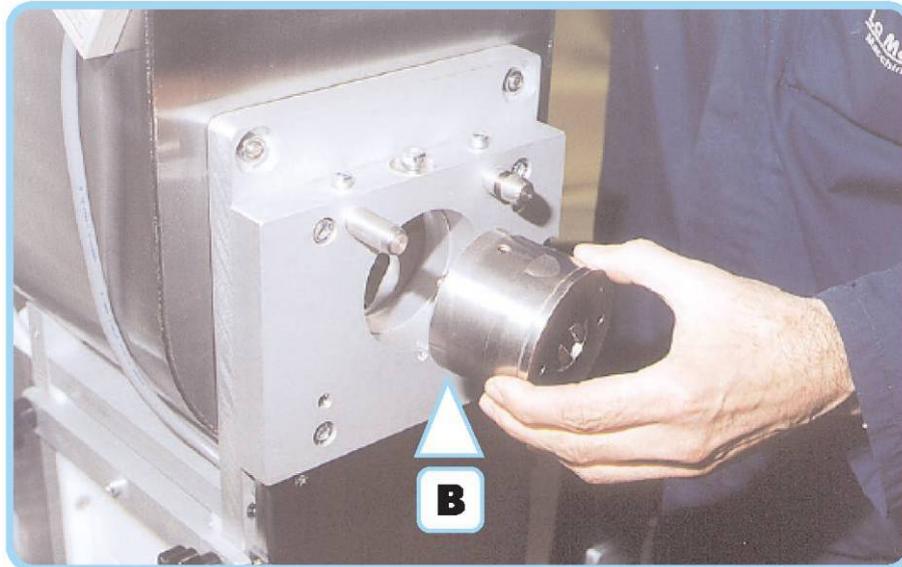


At the end of each working shift the machine must be cleaned. To undertake the cleaning, carry out the following operations:

- Unscrew screw **(A)** on the main reservoir.



- Remove the ring nut **(B)**.



- Remove the kneader shaft from the top of the reservoir.
Clean the interior of the reservoir and the shaft with a damp sponge to remove all the pasta residues.



Caution!

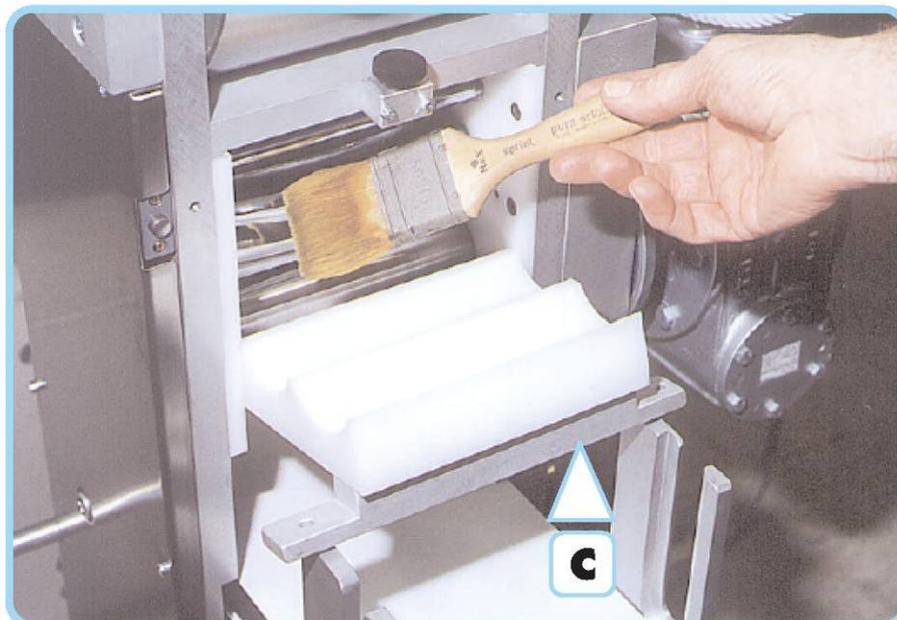
Never submerge the ring nut in the cleaning water.

GB

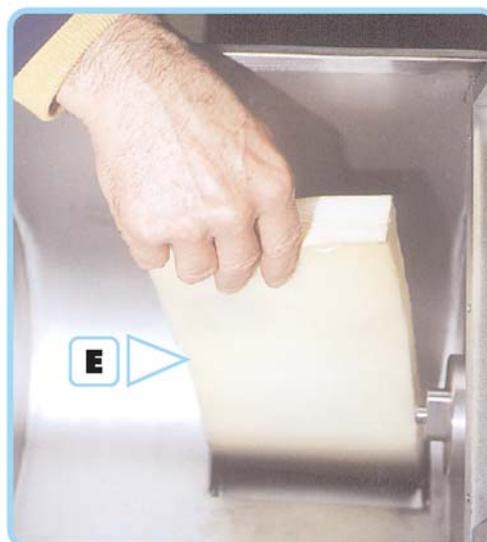
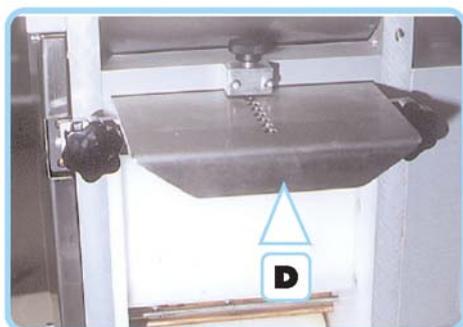


Before re-assembling the kneader shaft and the ring nut, the thickness rollers must also be cleaned as follows:

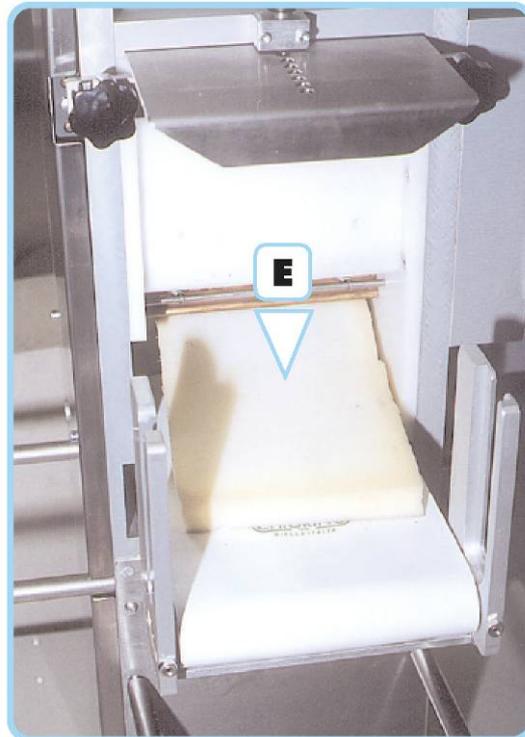
- Unscrew the two fixing knobs and lower the flap **(C)**; clean the surfaces of the thickness rollers using a paintbrush (USE ONLY WATER).
- Carry out the same operation from the other side of the machine.



- Once the operation is completed, close the flap and lock it in place using the applicable knobs removed earlier.
- Open the cover **(D)** completely.
- Insert the sponge provided **(E)** into the opening in the main reservoir.
- Close the reservoir grid, switch the main switch to **1** and then press the green START PASTA ROLLER switch **(10)**.



- Remove the sponge (E) from the pasta exit area.
- Press the red STOP PASTA ROLLERS button (11).



GB

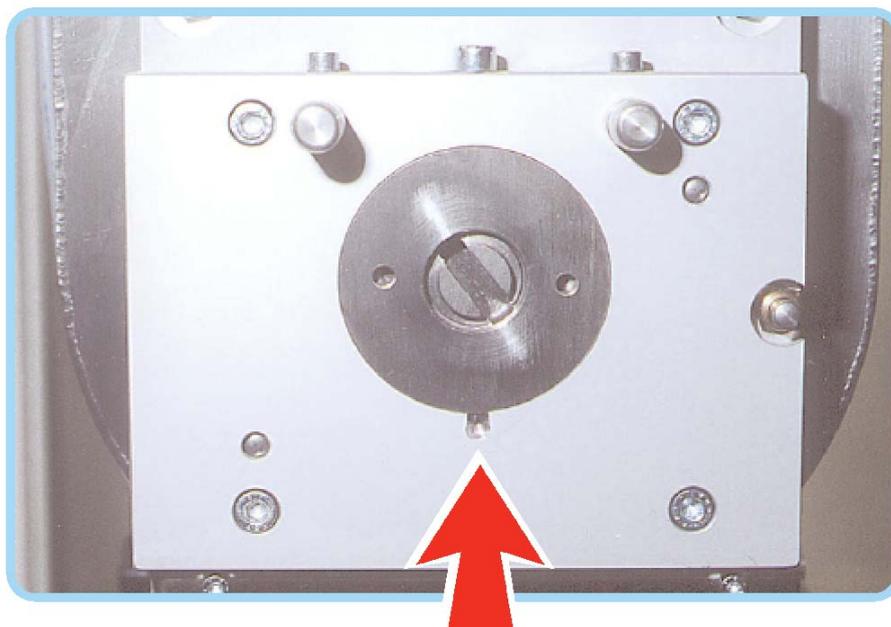


Caution!

It is advisable to repeat this operation several times.

At this point, reassemble the kneading shaft and ring nut removed earlier.

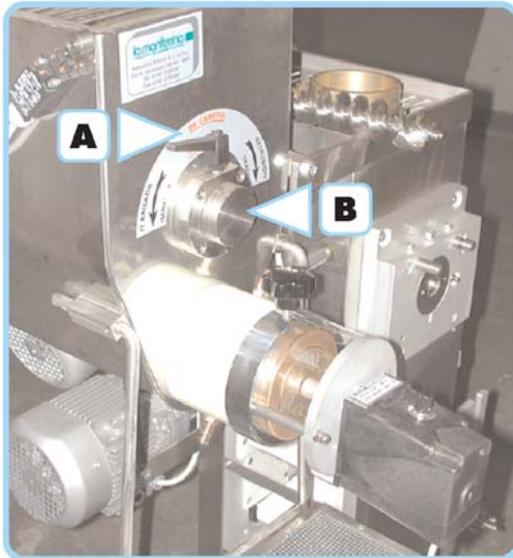
Note: During the reassembly of the ring nut, the notch on the ring nut must fit into its seat.





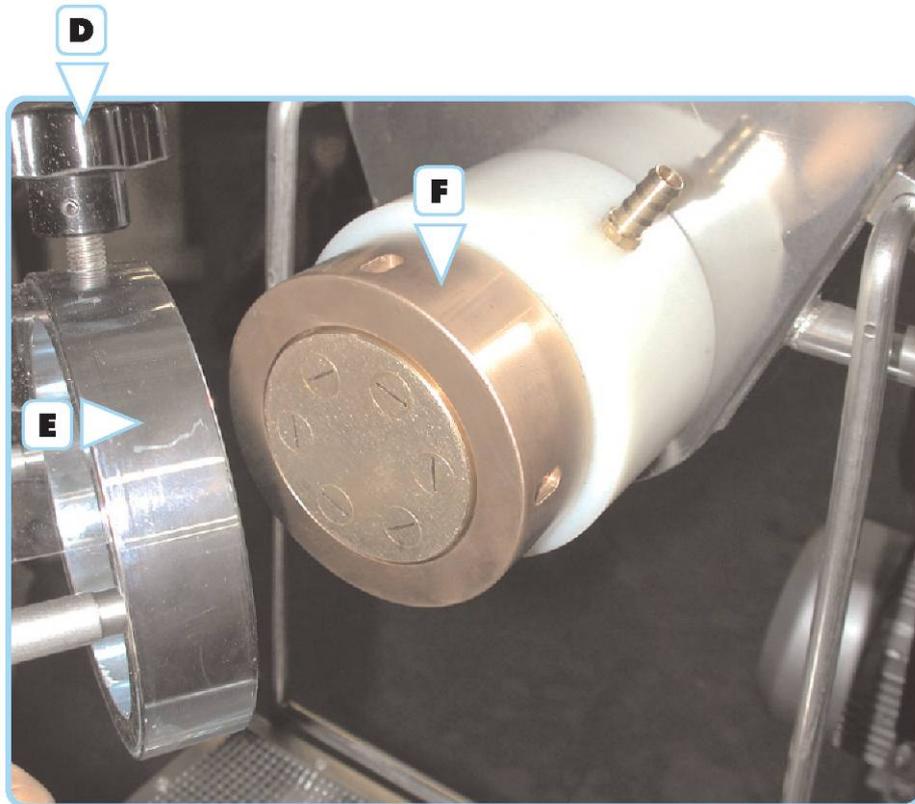
To clean the secondary reservoir, the following is required:

- Turn the blocking lever **(A)** in an anti-clockwise direction and remove the ring nut **(B)**.
- Unhook and open the upper grid.
- Remove the kneader shaft **(C)** from above.
- Clean the interior of the reservoir and the shaft with a damp sponge.
Reassemble the shaft with its ring nut, closing the blocking lever **(A)**.

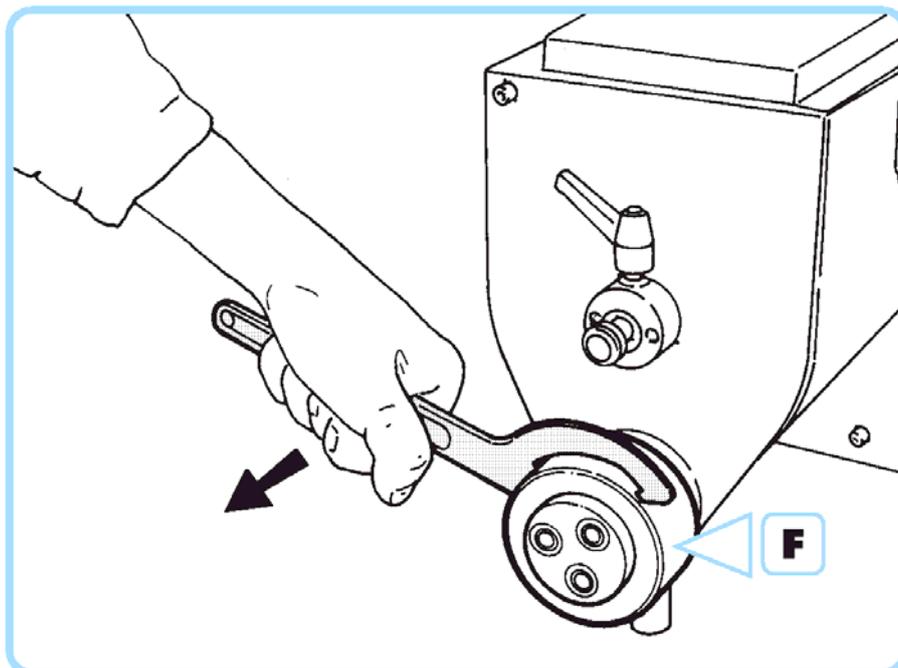


To clean the die, the following is required:

- Loosen the knob **(D)** and remove the pasta cutter motor **(E)**.
- Loosen the ring nut **(F)** with the appropriate spanner provided.

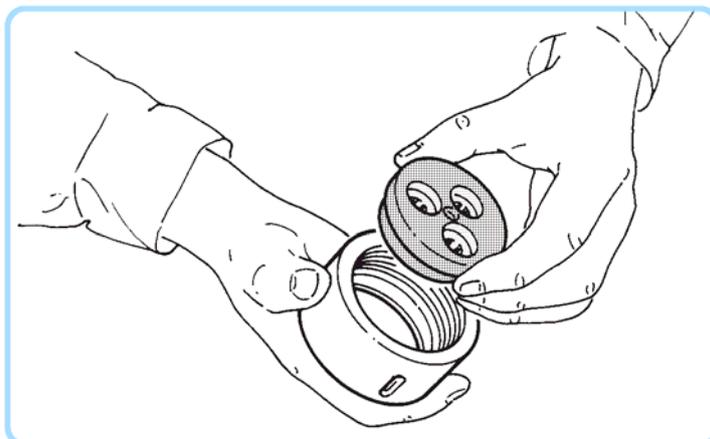


- Loosen the ring nut **(F)**.



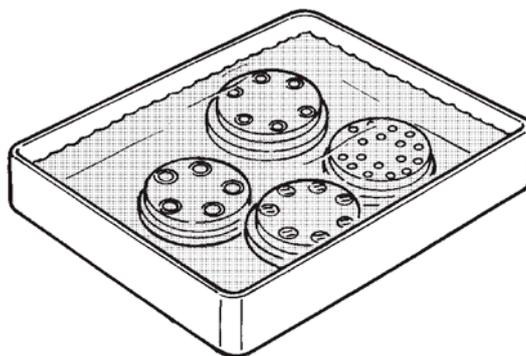


- Remove the die and clean it.



Caution!

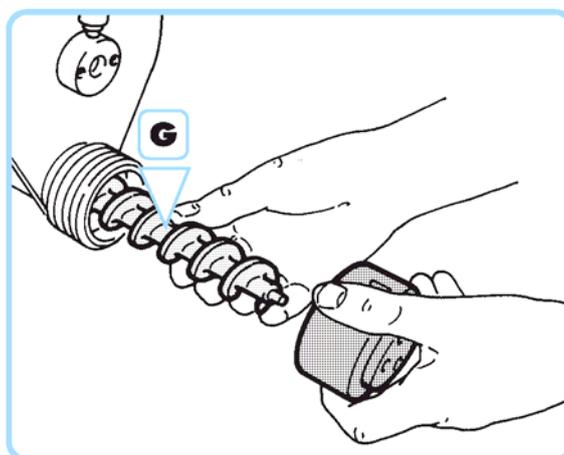
After use, the dies must always be submerged in a container filled with water to avoid the pasta drying.



Caution!

Never use a die that has not been submerged in water.

Remove the warm screw (**G**) and clean it with a damp sponge.

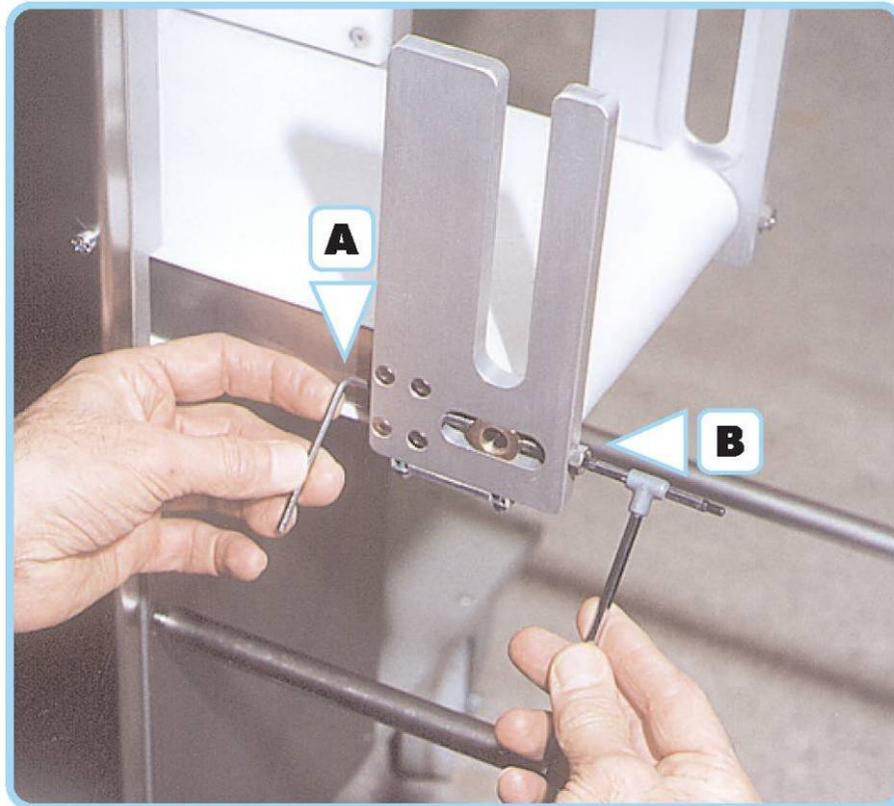


Caution!

Never use jets of water to clean the machine.

Pasta transport belt tension

Tension the belt using the appropriate allen wrenches on points **(A)** and **(B)** from both sides.



Caution!

For correct tensioning it is necessary to make the same number of turns of the screw on both sides.

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Maintenance interventions

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Date:

Description of the intervention:

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Maintenance technician: _____

Signature: _____

Date:

Description of the intervention:

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Maintenance technician: _____

Signature: _____



SPARE PARTS

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If in doubt do not proceed!

Telephone the *IMPERIA & MONFERRINA S.p.A.* After Sales Service immediately.

Tel. 0039.0141.27.60.11



Components subject to wear and mechanical fatigue



Caution!

The components subject to wear caused by the relevant functioning are to be checked at regular intervals and replaced as soon as they show significant signs of wear.

The manufacturer has designed and built the machine for a rational life, taking into account the normal use conditions of the Customer; in any case all these components have to be meticulously checked periodically.

Should “mechanical cracking” or permanent or cyclic structural deformation be found, immediately contact the Manufacturer and expert technicians who will take the necessary action.

Electrical wires, especially if exposed to heat, humidity and/or low temperatures lose their insulating characteristics over time.

With the aid of skilled technicians, check the integrity.

All electrical components with mechanical parts in motion during the work cycle (pushbuttons, selector switches, relays, etc.) are guaranteed by the manufacturer for a certain number of cycles, high, but still limited.

Check their condition frequently and contact skilled technicians for any periodical replacement within the guaranteed working life indicated.



Environment!

Removed parts that have been replaced are to be delivered to the specific collection centres for disposal.

List of recommended spare parts

The recommended spare parts are not incorporated in the supply of the machinery, unless provided for in the initial purchasing contract.

Spare parts can be ordered by fax, sent to:

IMPERIA & MONFERRINA S.p.A.

Spare Parts Technical Office:

Via Statale, 27/A - 14033 – Castell’Alfero (AT) - Italy

Tel: 0039.0141.27.60.11 - Fax: 0039.0141.27.60.20



WIRING DIAGRAM

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If in doubt do not proceed!

Telephone the *IMPERIA & MONFERRINA S.p.A.* After Sales Service immediately.

Tel. 0039.0141.27.60.11

