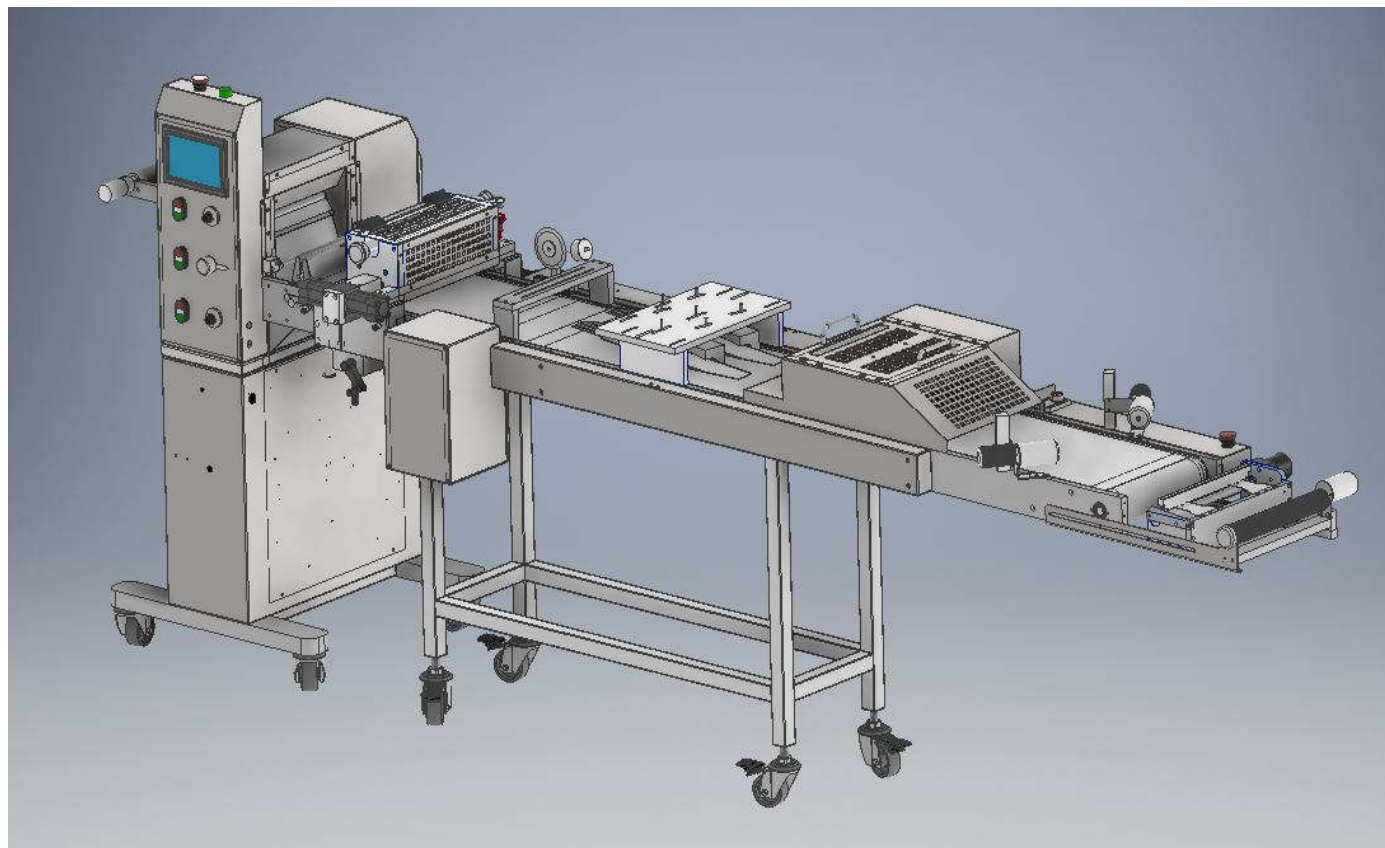




ITALGI S.r.l.

MACCHINE E IMPIANTI PER PASTA FRESCA E SECCA
MACHINES AND PLANTS FOR FRESH AND DRY PASTA
MÁQUINAS Y PLANTAS PARA PASTAS FRESCAS Y SECAS

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FORMING MACHINE

RAV160MS

RAV250MS

USE AND MAINTENANCE MANUAL

1 - INTRODUCTION

1.1 - Warning



**READ
CAREFULLY
BEFORE
INSTALLING
AND
USING
THE
MACHINE !**

Thank you for choosing our products.
Read this manual carefully before installing and using the machine.

This manual is to be considered part of the machine and the machine should never be used without reading the manual first.

Please save this manual for future reference.
Anyone using or maintaining the machine should read this manual and have free access to it at any time.
Manufacturer and retailer decline any responsibility for any damage to people or things caused by non-correct installation, use of power supply that does not conform to the one indicated on the identification tag at the back of machine, removal of protections or use of the appliance in a way that does not conform to the indications and prescriptions in this manual.
Manufacturer will not be liable for any injury or damage caused by the machine if it has not been used properly or if it has been modified by anyone after installation.
Always wear suitable clothes: do not wear any unlaced jacket, ties or loose clothes.
Always gather up your long hairs.
For your personal safety all the electrical connections and installation must be carried out by a trained electrician. The installation process described in paragraph 2 of this manual, must be carried out by specialized technicians authorized by manufacturers or by the distributor of the machine.
Never use the machine for any purpose different from those indicated in this manual.

Always turn machine off before cleaning or servicing it; **ABSOLUTELY** never run the machine without the proper supplied safety panels and covers.
Always keep children away from the machine.
Wash and clean accurately the parts in contact with food before using the machine, as explained in this manual.
Always keep machine and surrounding environment clean and sanitized.
For any further information, please contact your retailer or us.
Do not allow the use of the machine to people younger than the minimum allowed by local rules.



WARNING !!! Throughout the manual this symbol indicates important information warning you of any hazardous operation. Always read the message that follows it.

1.2 - Technical data

RAV160MS	
Sheet width [mm]	160
Production [kg/h]	Dependent on the product
Dimension [cm] – RAV160MS	315x80x165
Width [cm] with filling pump	180
Electrical consumption [kW]	1,1

RAV250MS	
Sheet width [mm]	250
Production [kg/h]	Dependent on the product
Dimension [cm] – RAV250MS	315x80x165
Width [cm] with filling pump	190
Electrical consumption [kW]	1,1

The RAV160MS and RAV250MS forming machines have been designed and manufactured by ITALGI, has been made to simplify both use and cleaning and it has been manufactured according to the latest hygienic and safety standards.

The RAV160MS and RAV250MS forming machines are equipped with three dedicated motors, two for the calibrating rollers, and one for the mold, controlled by electronic inverters (NB if the filling pump is not connected to the column under the control panel, the machine does not work) .

It is therefore possible to easily and independently adjust the speeds of calibrators and belt in order to make products of different sizes.

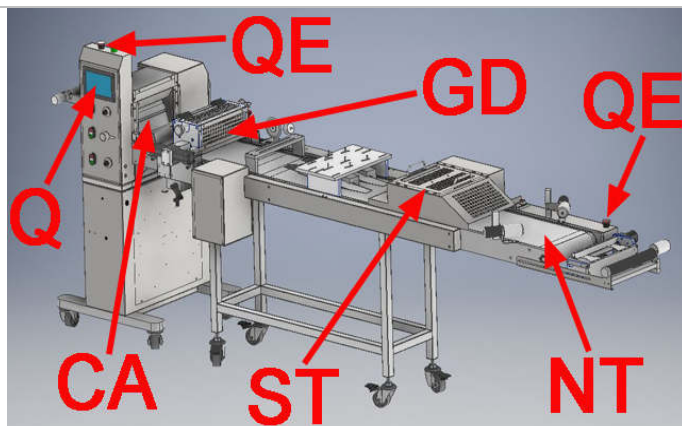
Different types of molds can be installed on the RAV160MS and RAV250MS forming machines, and you can also adjust the thickness of the sheet through special calibrating rollers.

The RAV160MS and RAV250MS forming machines allow you to make products to be folded by hand.



The machine has been designed according to current safety standards, where it was not possible to completely eliminate the risk, the adhesive shown in the figure was applied to warn the operator not to put his hands inside the parts.

1.3 - Description of machine



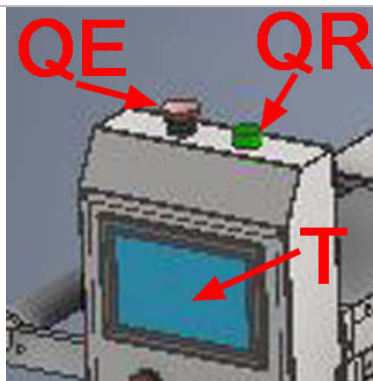
The main components of the RAV160MS and RAV250MS forming machines are as follows:

QE - Emergency button
 Q - Control panel
 CA - Calibrating cylinder
 NT - Conveyor belt
 ST - Mold
 GD - Dosing unit

1.4 - Description of control panel



WARNING !!! Never open main control panel [Q] if you are not a qualified electrician. Turn off main power switch before opening main control panel [Q].



The control panel is positioned on one side of machine and includes the controls of the various devices:

QR - **POWER ON**– Indicates that the machine is connected to the power supply.

QE - **EMERGENCY** – Emergency button for arresting the machine.

T - **TOUCH SCREEN** – Adjust the machine parameters.



Q1 - **CALIBRATOR** – It activates the calibrating rollers.

Q2 - **BELT** – It activates the belt.

Q3 - **FAST / SLOW** – Switch that allows you to greatly reduce the speed of the belt to allow the sheet to pass through the various components easily.

Q4 - **SHEET SETTING** – It adjusts the thickness of the upper sheet.

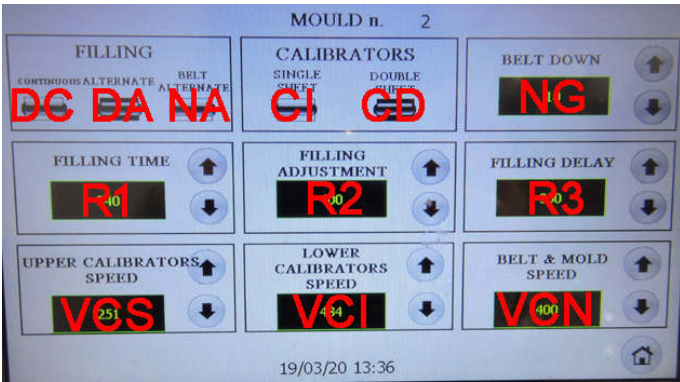
Q5 - **FILLING** – It activates the filling pump.

Q6 - **FILLING SPEED** – It adjusts the speed of the stuffing pump through a potentiometer.

Q7 - **SCRAPS SPEED** – It adjusts the speed of the side rollers or the front roller at the end of the belt that discard the excess sheet.



QG - **MACHINE**– General machine ignition switch.

	<p>DC - CONTINUOUS DOSING - The shutter of the doser always remains open allowing a continuous dosage of filling, while the belt runs in the low position.</p> <p>DA - ALTERNATE DOSING - The shutter of the doser opens and closes and the belt rises and lowers during the dosage,</p> <p>NA - ALTERNATE BELT - The belt stops in the elevated position every time the doser shutter is open to dose the filling and when the belt return to lower position it restarts to run;</p> <p>CI - SINGLE SHEET - Highlights the use of only the lower calibrators for the production of a single sheet.</p> <p>CD - DOUBLE SHEET - Highlights the use of lower and upper calibrators for the production of a double sheet (only for machines that have both calibrators).</p> <p>NG - BELT DOWN - Allows you to adjust the time in which the belt is in a low position compared to dosing unit: according to the size of the product, the time is shorter for small sizes while it is longer for large sizes.</p> <p>R1- FILLING DURATION - Allows you to adjust the opening time of the shutter of the filling doser.</p> <p>R2 - FILLED RE-PHASING - Allows you to delay the start of the filling dosing cycle by the time entered.</p> <p>R3 - FILLING DELAY - Allows you to delay the descent of the belt after dosing by the time entered. In order to influence the dosing cycle, the filling delay value must be greater than the sum of the filling duration [R1] and the filling power factor correction [R2], however it must always be set at least as the sum of the two.</p> <p>VCS - CALIBRATOR SPEED - Adjusts the speed of the upper calibrating rollers (only for machines that have them).</p> <p>VCI - CALIBRATOR SPEED - Adjusts the speed of the lower calibrating rollers.</p> <p>VN - BELT AND MOLD SPEED - Adjusts the speed of the belt and the mold.</p>

2 - INSTALLATION (ONLY TRAINED PERSONNEL)

2.1 - Positioning of the machine



WARNING !!! Machine is very heavy. Always use a forklift to move it (minimum capacity 500 kg).

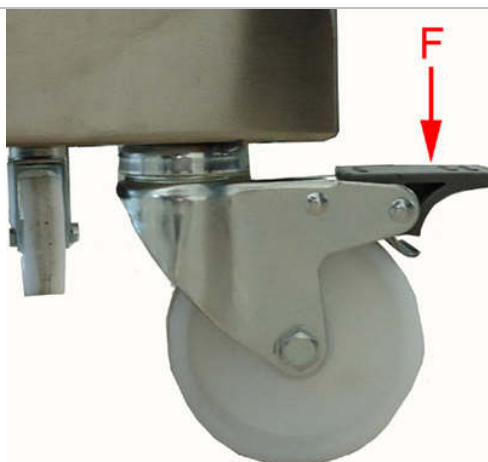
Unload the pallet containing the machine packed with a forklift truck (minimum capacity 500 kg).

After placing the packed machine in the desired location, remove the packaging from the machine and place the machine on a horizontal surface strong enough to support the weight of the machine, listed among the technical features.

The RAV160MS and RAV250MS forming machines are equipped with wheels. Once positioned in the work area it can be easily moved by simply pushing it.



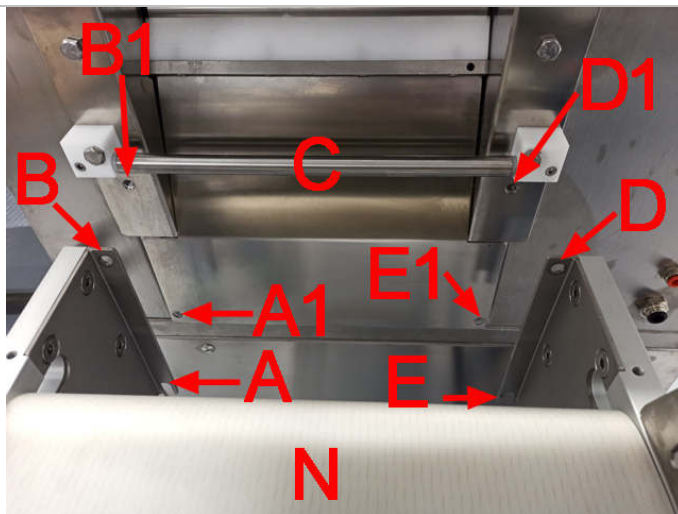
WARNING !!! Moving heavy machinery might be really dangerous! Make sure that the forklift is sufficiently powerful (minimum capacity 500 kg) to lift the load. Always double check that the machine is lock in securely fastens and that it does not shake. Never walk underneath or nearby any lifted heavy piece of equipment. Avoid keeping heavy loads high while moving them around; always keep them as close as possible to the ground.



The wheels are equipped with brakes. Before moving RAV160MS and RAV250MS verify that the brakes are switched off: if the lever [F] is lowered, the brake is engaged, if the lever [F] the machine is lifted is free to move.

Check that the brakes [F] are engaged before operating the machine.

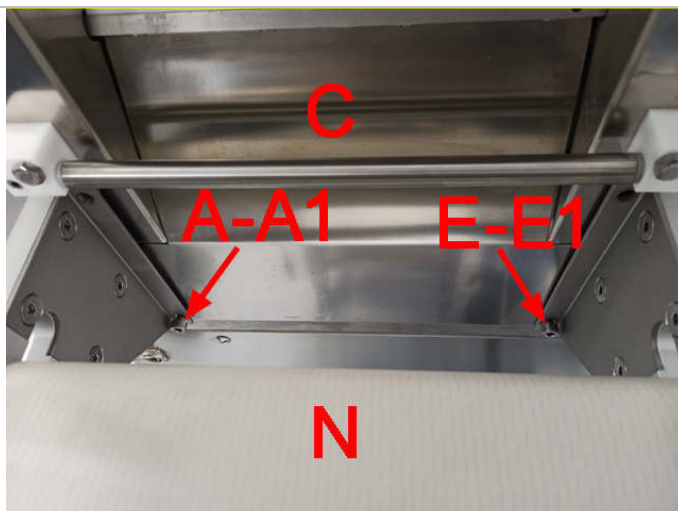
2.2 - Machine installation



The machine is shipped by separating the calibrating unit [C] from the belt [N], so once the packaging has been removed, it must be assembled.

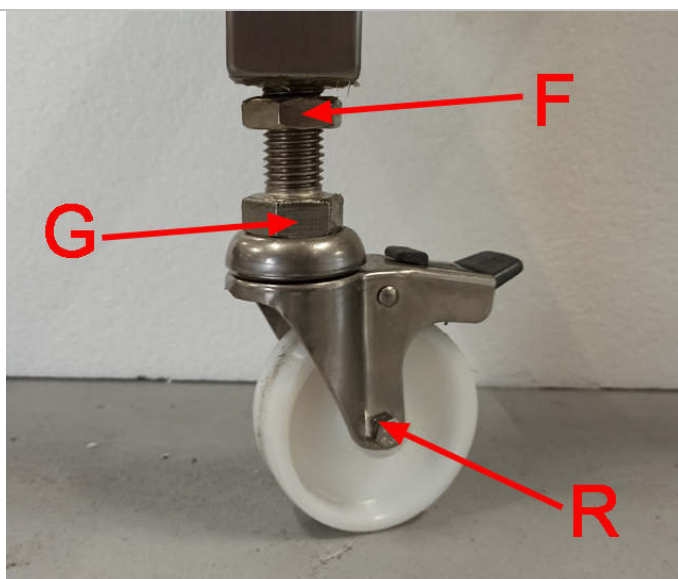
It is recommended to place the machine in a place with an even and level floor.

Place the belt [N] in front of the calibrator unit [C] taking care to match the holes [B with B1 and D with D1], and the slots [A and E] with the holes [A1 and E1].



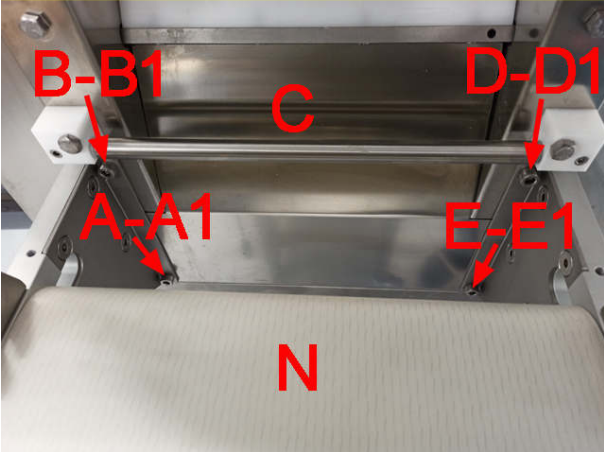
Assemble the lower part of the belt [N] with the calibrator unit [C] by positioning two of the four screws supplied to join the slots with the holes [A-A1 and E-E1].

Do not tighten the two screws inserted to facilitate the insertion of the other two screws supplied to assemble the upper part of the belt [N] with the calibrator unit [C].


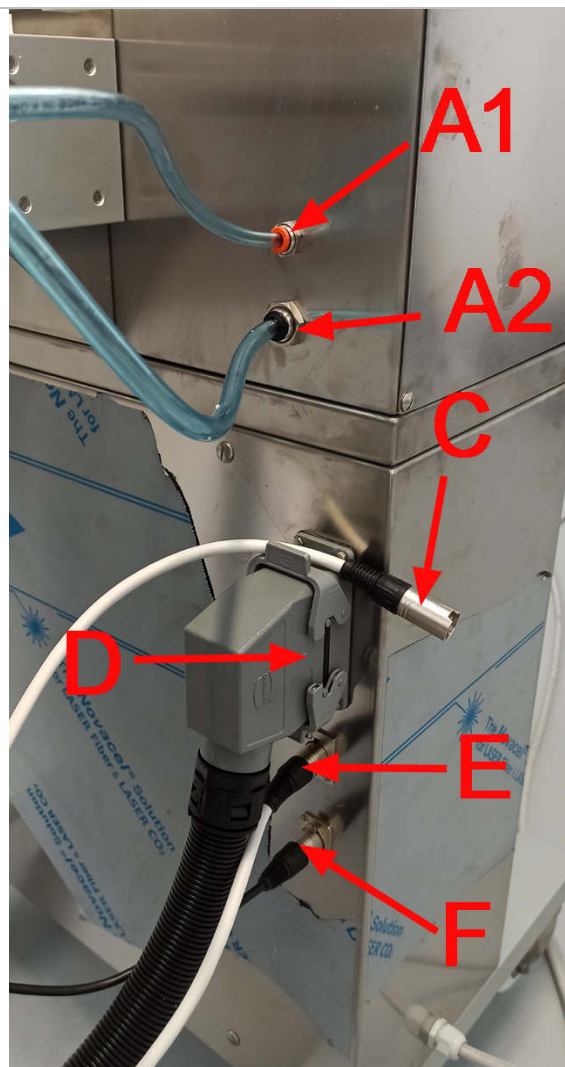


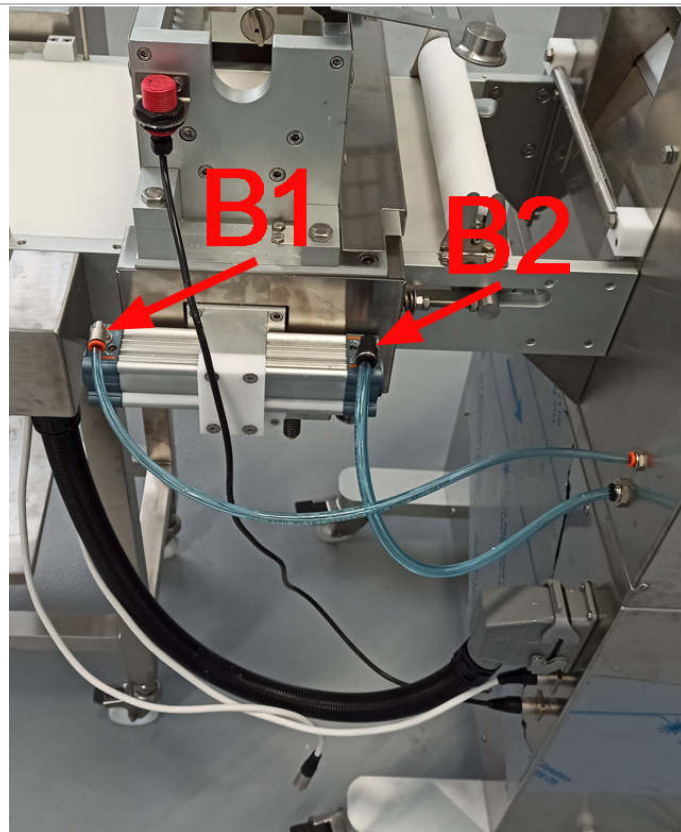
The adjustable wheels [R] allow to raise or lower the belt to remedy flooring problems and simplifying the union between the belt [N] and the calibrator unit [C] which has fixed wheels.

Unscrew the lock nut [F] and tighten the screw [G] to lower the belt or unscrew the screw [G] to raise it. Once the desired height has been reached, tighten the lock nut [F].

	<p>Match the upper joining holes [B with B1 and D with D1] between the belt [N] and the calibrating unit [C] with the aid of adjusting of belt wheels.</p> <p>Assemble the upper part of the belt [N] with the calibrator unit [C] by positioning the remaining two screws supplied to join the holes [B-B1 and D-D1].</p> <p>Tighten the four screws.</p>
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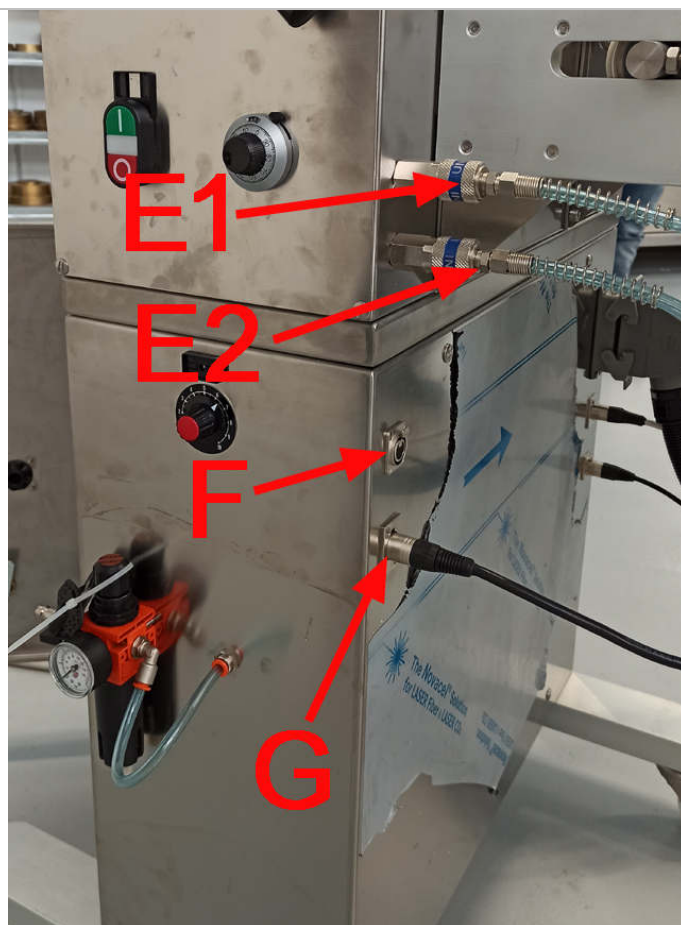
2.3 - Electric and pneumatic connections

	<p>WARNING !!! The electrical connection operations must always be carried out by an electrician or an authorized technician.</p>
	<p>RIGHT PART OF MACHINE</p> <p>Connect the smaller compressed air pipe in the wall-pass [A1]. Connect the largest compressed air pipe in the wall-pass [A2].</p> <p>Connect the belt multi-pin plug [D] as shown in the picture. Connect the dosing unit cover safety cable [F] as shown in the picture. Connect the scraps roller cable [E] as shown in the picture, or in the same housing connect the front scraps roller cable [C].</p>



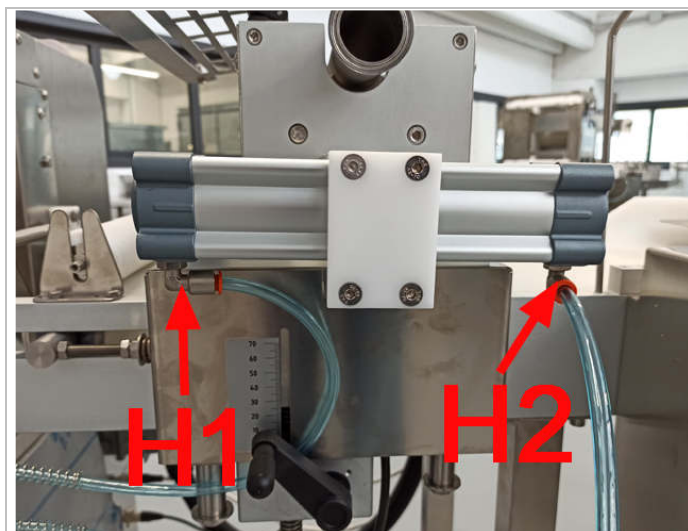
RIGHT PART OF MACHINE

Connect the smaller compressed air pipe to the connection [B1].
Connect the largest compressed air pipe to the connection [B2].



LEFT PART OF MACHINE

Connect the compressed air pipe to the connection [E1].
Connect the compressed air pipe to the connection [E2].
Plug the stuffing pump cable into socket [F].
Connect the height dosing unit safety cable [G] as shown in the picture.



LEFT PART OF MACHINE

Connect the compressed air pipe coming from the connection [E1] to the connection [H1].
Connect the compressed air pipe coming from the connection [E2] to the connection [H2].



LEFT PART OF MACHINE

Connect the compressed air supply [A] of the forming machine to the plant's compressed air system.

Turn the tap knob [R] counter clockwise to allow compressed air to enter the forming machine.

Adjust the compressed air pressure to about 5 bar using the [RP] knob. After pulling the [RP] knob upwards you can increase the pressure by turning the [RP] knob clockwise or decrease it by turning it counter clockwise. Once the adjustment is complete, press the knob down to fix the adjustment.



Check that the characteristics of the power supply available are compatible with those of the machine, shown on the identification plate on the machine.

Then connect the machine to an electric socket of the prescribed voltage, equipped with an earth cable and protected by a differential switch.

2.4 - Check and description of the safety of the machine



ATTENTION !!! Before each use of the machine, check that all the safety devices it is equipped are functional!

Before using the machine make sure that it is properly washed and sanitized (in accordance with local regulations).

Make sure that the machine is properly connected to the power supply and that all the switches on the power line are turned on.

Check that no other person is working on the machine or cleaning it.

Check that there are no foreign components to the machine components on the belt (e.g. screws, tools, etc.), they could seriously damage the machine.



ATTENTION !!! Before switching on the machine, make sure that no other person is working on the machine or cleaning it!

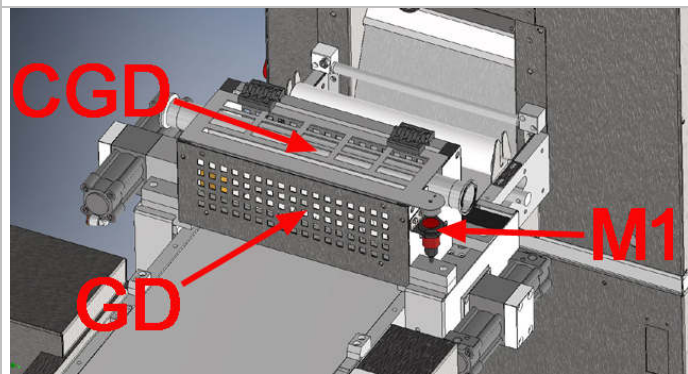


Connect the machine to the power supply and turn the machine general switch [QG] a quarter of a turn clockwise. The green light [QR] indicates the starting of the machine and remains always on during operation.

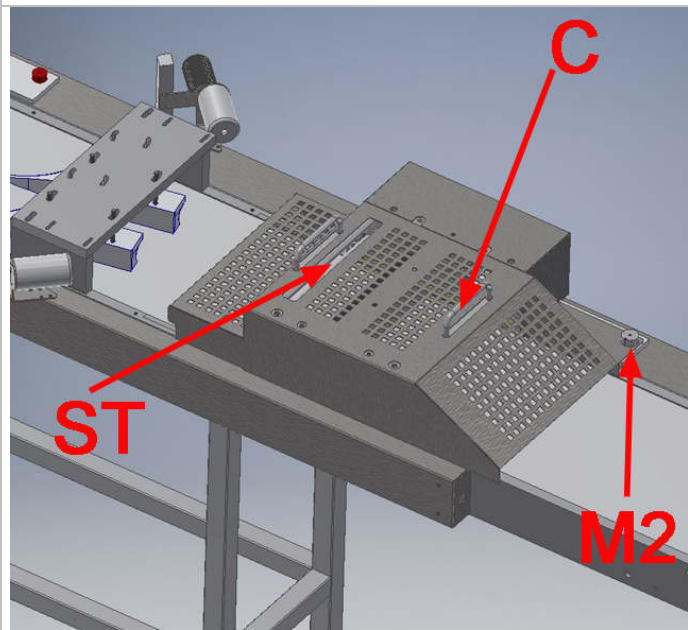
If the [QR] light is not on, check that the machine is properly connected to the power supply and call technical assistance if necessary.



Activate the calibrating rollers by pressing the green button [Q1] "CALIBRATOR".
Activate the belt by pressing the green button [Q2] "BELT".

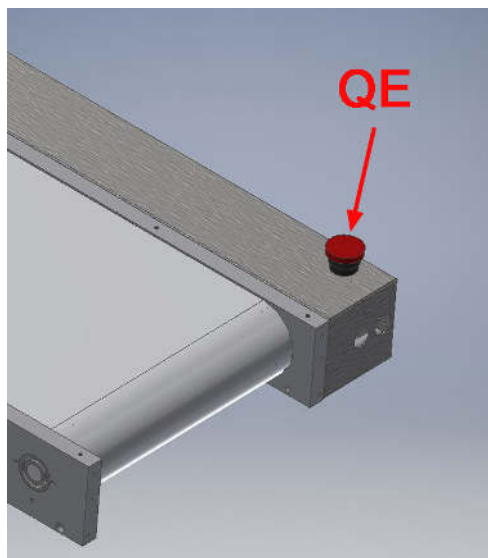
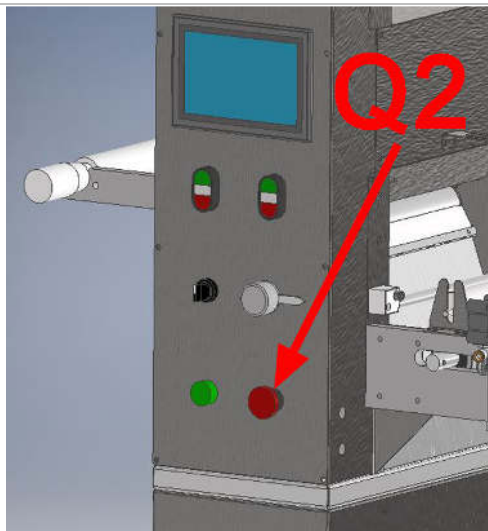


Check the functioning of the safety microswitch [M1]:
by lifting the cover [CGD] of the dosing unit [GD] the dosed stops.



Check the functioning of the safety microswitch [M2]:
by lifting the cover [C] of the mold [ST] the bel and the mold stops.

	<p>Check the functioning of the safety microswitch [M3]: by lifting the cover [C] of the mold [ST] the belt and the mold stops.</p>
	<p>Check the presence of the sticker [AT] on the cover [C] of the overturned and “cannelloni” mold. Never insert fingers, tools or knives inside the dispenser, the operator risks seriously injuring himself and damaging the machine.</p>
	<p>Check the presence of the sticker [AT] on the cover [C] of the “plin” mold. Never insert fingers, tools or knives inside the dispenser, the operator risks seriously injuring himself and damaging the machine.</p>
	<p>Check the presence of the sticker [AT] on the cover [Y] of the dosing unit [GD]. Never insert fingers, tools or knives inside the dispenser, the operator risks seriously injuring himself and damaging the machine.</p>



Check the functioning of both the emergency buttons [Q2 and QE]: by pressing the emergency button [Q2] the machine stops.

To reactivate the machine, turn the emergency button [Q2] clockwise.

Check the operation of both emergency buttons [Q2 and QE]: pressing the emergency button [QE] the machine stops.

To reactivate the machine, turn the emergency button [QE] clockwise.

3 - USE



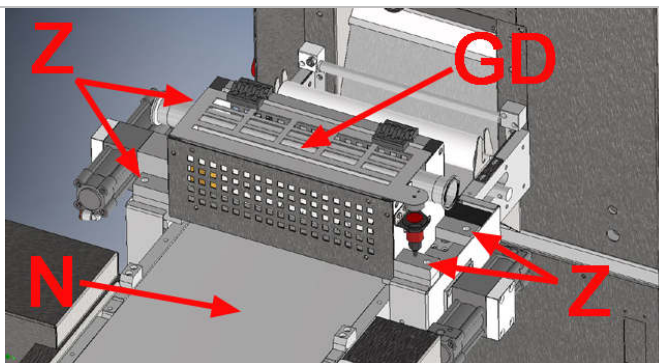
ATTENTION !!! Before switching on the machine, make sure that no other person is working on the machine or cleaning it!

Before using the machine make sure that it is properly washed and sanitized (in accordance with local regulations).

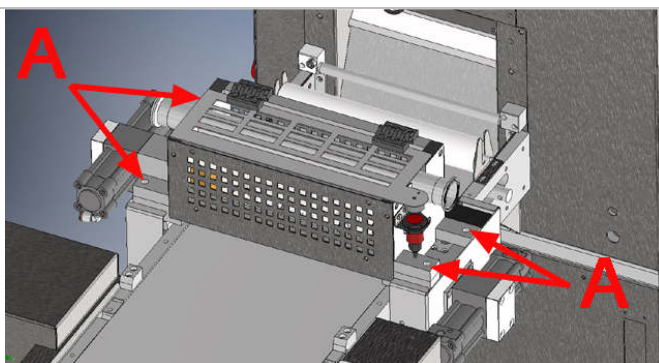
Make sure that the machine is properly connected to the power supply and that all the switches on the power line are turned on.

Check that no other person is working on the machine or cleaning it.

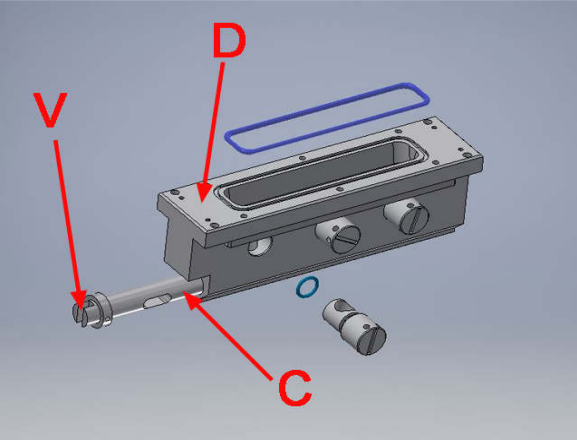
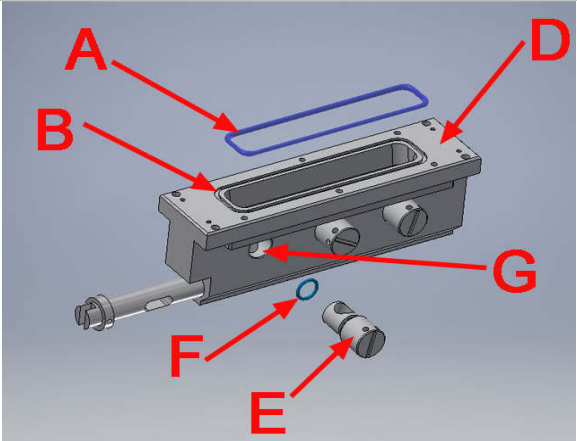
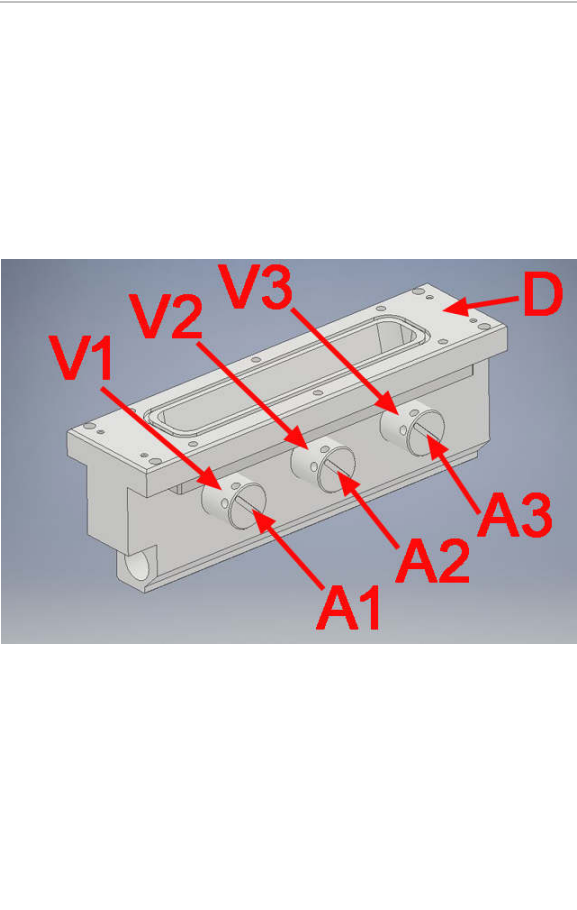
3.1 - Production hand-made products



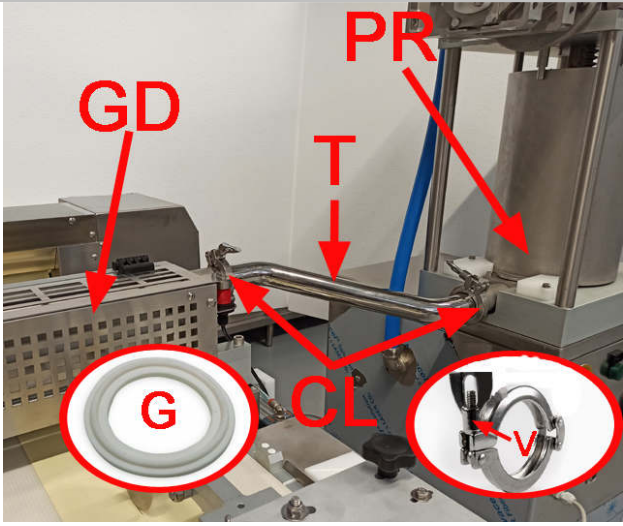
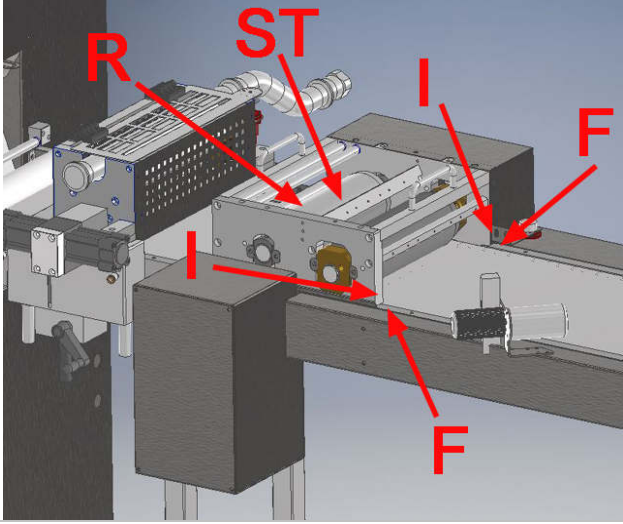
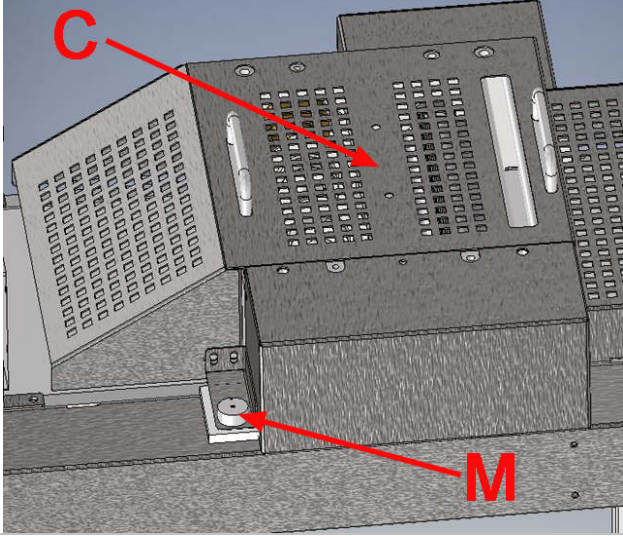

Place the dosing unit [GD] on the belt [N] in correspondence with the four holes [Z].

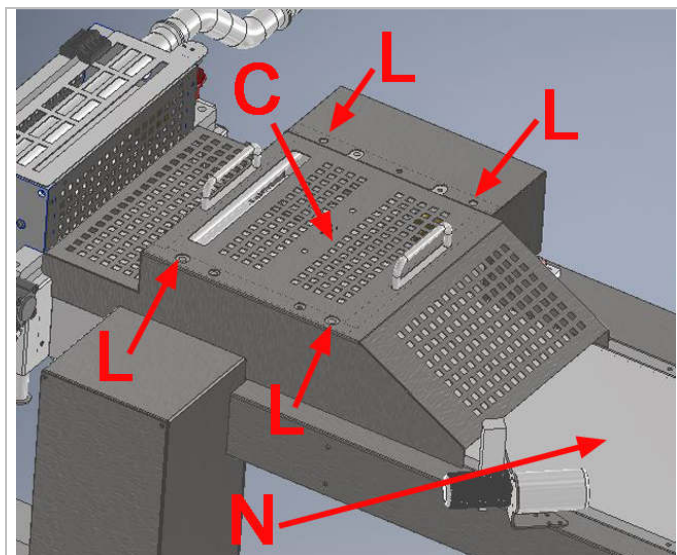




Screw the four screws [A] to secure the dosing unit.




	<p>Insert the shutter [C] in the doser [D].</p> <p>ATTENTION! The slot [V] on the tip of the shutter must be in vertical position as shown in the picture.</p>
	<p>Insert the O-ring [A] in its seat [B] on the doser [D]. Insert the O-ring [F] in its seat on the valve [E]. Repeat the same operation for all the valves. Insert all the valves [E] in their seats [G] on the doser [D].</p>
	<p>It is possible to adjust the dosing using the valves [V1, V2, V3] on the doser [D] using the appropriate tool. Depending on the position of the valve inside the doser, the filling will have a different dosing pressure and therefore a different amount of filling will come out of the doser.</p> <p>The closer is the valve than the filling entry into the doser, bigger is the pressure of the filling in that point, so the amount of filling that will come out of the doser will be bigger.</p> <p>To level the quantity of filling, the valves [V1, V2, V3] can be adjusted by changing the position of the slots [A1, A2, A3]. This adjusts the size of the filling outlet and therefore the quantity of the filling that will come out during the dosing. Position all the valves [V1, V2, V3] with the slots [A1, A2, A3] at 45 ° as shown in the picture (if the slots are in vertical position the valves are completely open while if the slots are in horizontal position valves are completely closed).</p> <p>If the filling enters the dispenser [D] from the right side, the position of the valve [V3] remains unchanged while the valve [V2] will be slightly open, bringing the slot [A2] to a slightly more vertical position and the valve [V1] is slightly opened but more than the valve [V2], bringing the slot [A1] to a slightly more vertical position.</p> <p>In other terms the valves will be closer near the inlet of the filling and more open in the farthest part, while the first valve near the inlet must always be very close (at approximately 45°).</p>

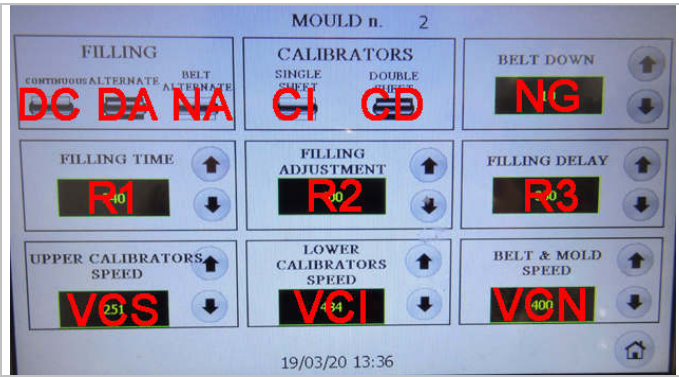
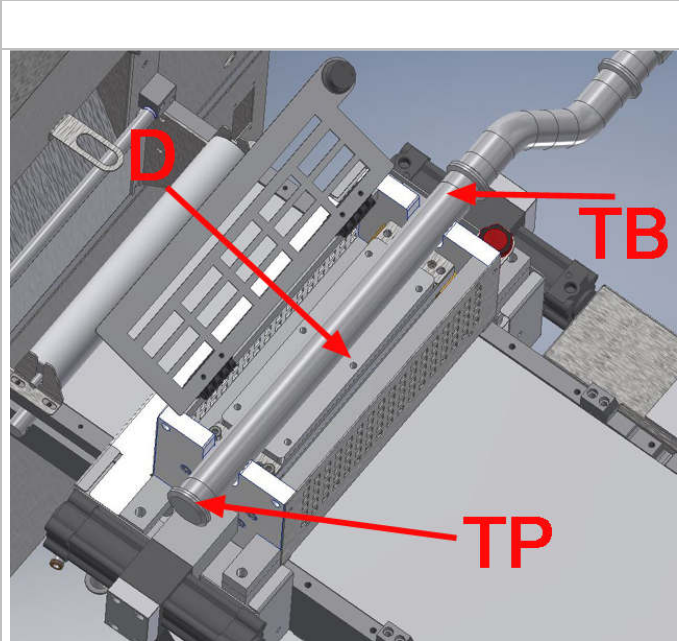
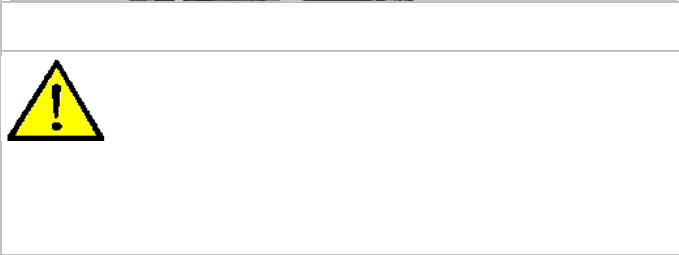
	<p>Place the doser [D] in the dosing unit [GD] matching the slot [V] with the pin [P].</p>
	<p>Secure the doser [D] in the dosing unit [GD] by tightening the four screws [S].</p>
	<p>Place the pipe [T] in the dosing unit [GD] and secure it by tightening the six screws [S].</p>

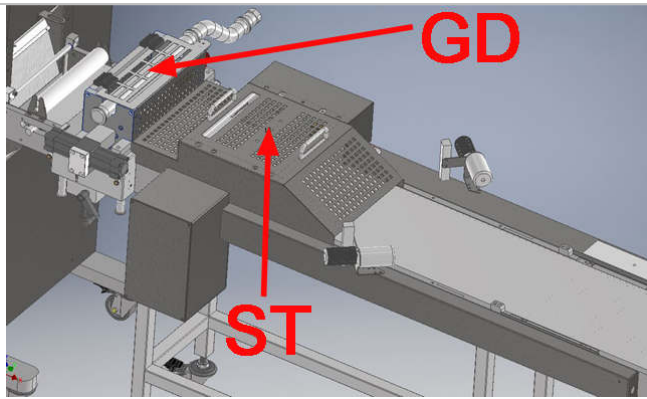
	<p>Fix the pipe [T] to the filling pump [PR] using the clamp fitting [CL] shown in the picture.</p> <p>Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them.</p> <p>Lock the fitting [CL] by tightening the screw [V].</p> <p>Fix the pipe [T] to the dosing unit [GD] using the clamp fitting [CL] shown in the picture.</p> <p>Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them.</p> <p>Lock the fitting [CL] by tightening the screw [V].</p>
	<p>Place the mould [ST] on the belt.</p> <p>Make sure that the sides [I] of the mould assembly [ST] adhere perfectly to the surface of the sides [F] of the belt as shown in the picture.</p> <p>In case of difficulty to positioning the mold [ST] in uniform contact with the sides [F], slightly rotate the forming roller [R] back and forth to facilitate the coupling of the gears.</p>
	<p>Place the protection [C] over the mould.</p> <p>Before starting up the forming machine make sure that the protection [C] is inserted.</p> <p>If the protection [C] is not correctly positioned the safety sensor [M] will prevent the forming machine from starting.</p>
	<p>WARNING !!! If you do not position the mold correctly and do not fix it with the special fixing knobs, you could seriously damage the machine!</p>

	<p>Lock the protection [C] and the mold to the belt [N] by screwing the four knobs [L].</p>
	<p>Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.</p> <p>The green light [QR] indicates the starting of the machine and remains always on during operation.</p> <p>If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance.</p>
	<p>The first screen will appear on the display allowing you to select the desired mould [see image].</p> <p>The parameters that will be modified will then be automatically stored in the device memory.</p> <p>Then at this point, type in the display the number corresponding to the mould group that has been inserted on the belt.</p>

	<p>Depending on the type and size of the hand product, it is necessary to raise or lower the filling dosing unit [GD].</p> <p>The larger the size of the hand product, the greater the distance between the filling dosing unit [GD] and the belt must be.</p> <p>The smaller the size of the hand product, the shorter the distance between the filling dosing unit [GD] and the belt must be.</p> <p>Turn the lever [L] counterclockwise to lift the filling dosing unit [GD].</p> <p>Turn the lever [L] clockwise to lower the filling dosing unit [GD].</p>
	<p>Check the correct height of the filling dosing unit respect to the belt on the graduated scale [GS].</p>
	<p>The safety switch, located under the casing [M], makes it possible not to lower the dosing unit [GD] excessively and, in this case, the machine does not lift the belt. The same safety switch allows the dosing unit [GD] to be brought closer to the belt [N] for the production of formats with continuous dosing by inhibiting the movement of the belt.</p>

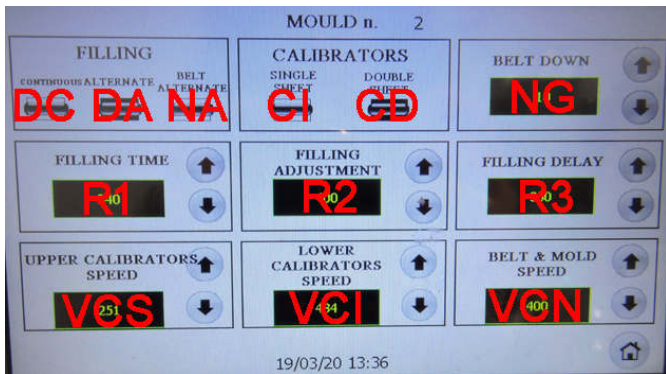
	<p>Place the rolling pin with sheet on rolling pin supports [SM].</p>
	<p>The thickness of the sheet exiting the cylinder can be calibrated with a value between 0.2 mm and 2 mm.</p> <p>To adjust the thickness of the sheet, stop the machine by pressing the red button [Q1], "CALIBRATOR", and turn the adjustment lever [Q4] "ADJUSTMENT OF THE SHEET" so as to set the desired thickness of the sheet, indicated (in mm) on the silk-screen printing (however it is good to adjust the thickness without sheet in the calibrators).</p> <p>Press the green button [Q1], "CALIBRATOR", to start the calibrating rollers.</p> <p>Insert the sheet into the calibrating rollers.</p> <p>Check that there are no foreign materials to the machine components on the belt (e.g. screws, tools, etc.), they could seriously damage the machine.</p> <p>Press the green button [Q2] "BELT" to start the motion of the belt and the mold.</p> <p>When the [Q1] "CALIBRATOR" and [Q2] "TAPE" buttons are lit it means that the machine is working the parts are moving.</p>
	<p>WARNING !!! Never adjust the thickness [Q4] when the machine is in motion. You could damage the rollers.</p>

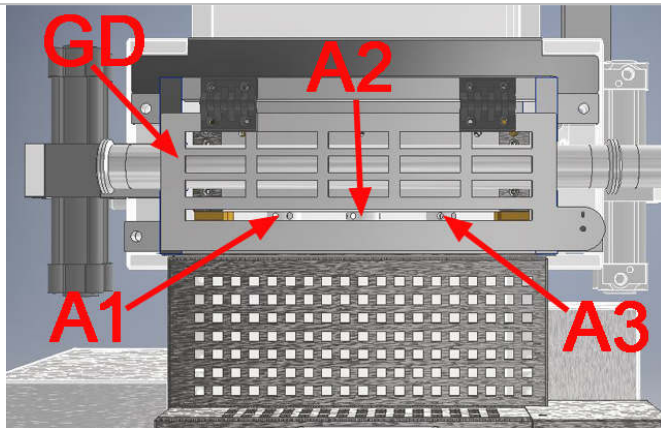
	<p>It is possible to adjust the speed of the calibrating rollers by typing the desired value on the display in the "LOWER CALIBRATOR SPEED" [VCI] box.</p> <p>It is possible to adjust the speed of the belt by typing the desired value on the display in the "BELT AND MOLD SPEED" box [VN].</p> <p>N.B. The sheet must remain slightly stretched between the calibrator outlet and the pressure roller.</p>
	<p>Remove the cap [TP] and preload the filling doser [D]: press the green button [Q5], "FILLING" and fill the dispenser [D] until you see the filling in the tube [TB] near the cap [TP]. Stop the filling pump by pressing the red button [Q5] "FILLING" and secure the cap [TP].</p>
	<p>WARNING !!! Do the preloading operation of the doser [D] always with the cap [TP] removed, otherwise an over-pressure will be created inside the dispenser [D] which can seriously damage it.</p>



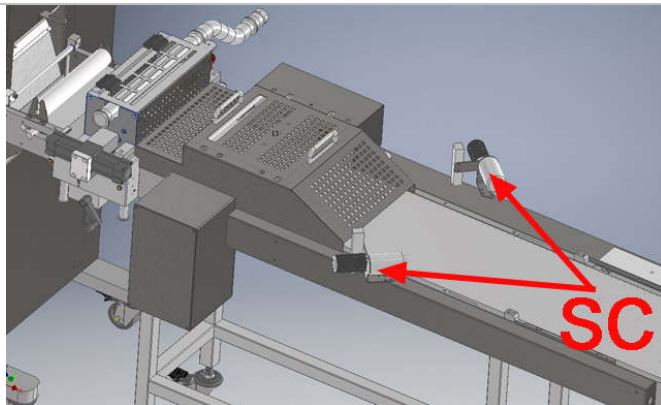
When the sheet has passed through the dosing station [GD] and the mould [ST], the stuffing pump can be started by pressing the green button [Q5] "FILLING". Set the desired dosing speed using the potentiometer [Q6] "FILLING SPEED".

It is possible to modify all the parameters that are on the display: the type of dosing [DC, DA, NA], the time the belt remains in the low position [NG], the opening duration of the shutter of the filling doser [R1], the filling dosing cycle start delay [R2] and the belt descent delay from the elevated position [R3] (see explanations on page 4).





During production It is possible to adjust the amount of filling coming out from the valves of the dosing unit [GD] by acting on the slots [A1, A2, A3] by inserting the supplied tool into one of the two holes on the valve and rotating it. Position the buttonholes [A1, A2, A3] at the correct angle to level the filling quantities, as explained on page 16.

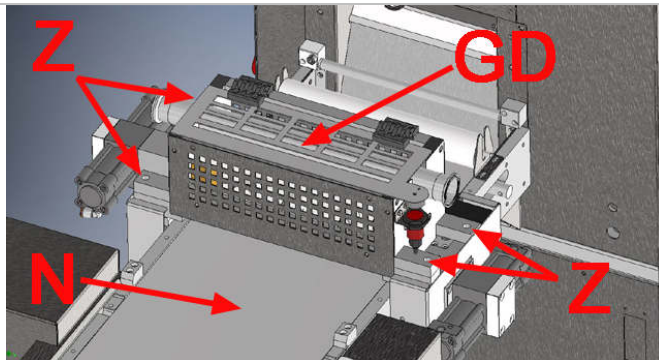


Place the possible sheet scraps (at least 50cm long after the roller) on the two scraps rollers [SC].

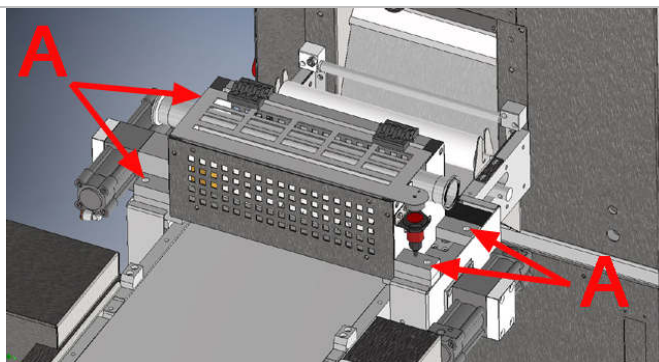
Synchronize by acting on the "SCRAPS" knob [Q7], the speed of the scraps rollers [SC] with the speed of sheet scraps coming from the mold: if the rollers [SC] turn too quickly or too slowly tear or do not remove the sheet.



3.2 - Production overturned product



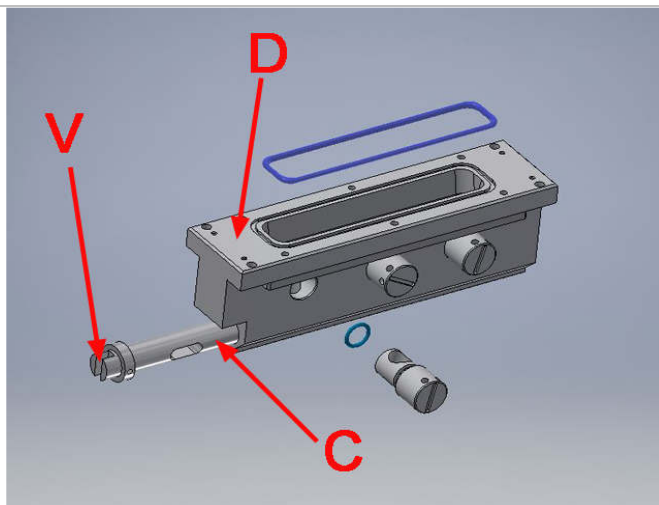
Place the dosing unit [GD] on the belt [N] in correspondence with the four holes [Z].



Screw the four screws [A] to secure the dosing unit.

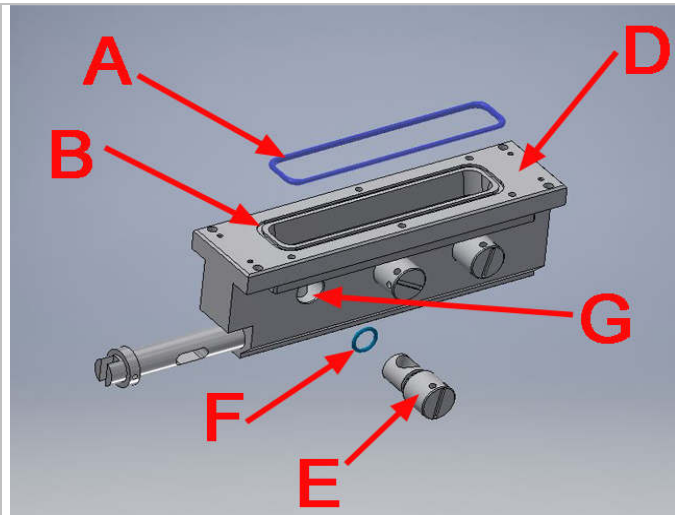


WARNING! Never insert fingers, tools or knives inside the dosing unit [GD]: as shown in the picture, there is the danger sticker [AT] on the protection [Y] of the dosing unit [GD].

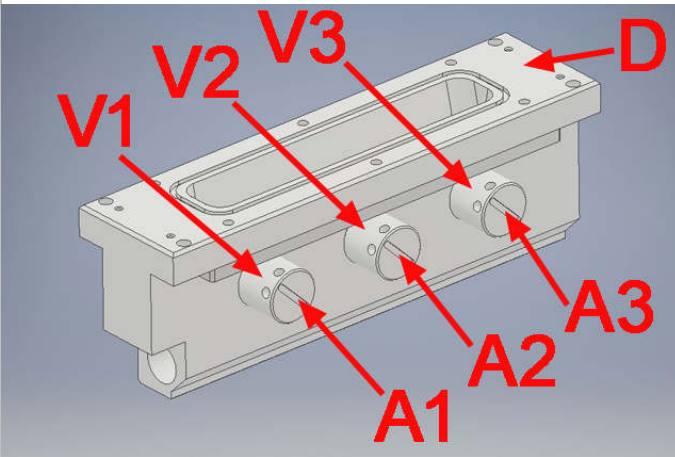


Insert the shutter [C] in the doser [D].

ATTENTION! The slot [V] on the tip of the shutter must be in vertical position as shown in the picture.



Insert the O-ring [A] in its seat [B] on the doser [D]. Insert the O-ring [F] in its seat on the valve [E]. Repeat the same operation for all the valves. Insert all the valves [E] in their seats [G] on the doser [D].



It is possible to adjust the dosing using the valves [V1, V2, V3] on the doser [D] using the appropriate tool. Depending on the position of the valve inside the doser, the filling will have a different dosing pressure and therefore a different amount of filling will come out of the doser.

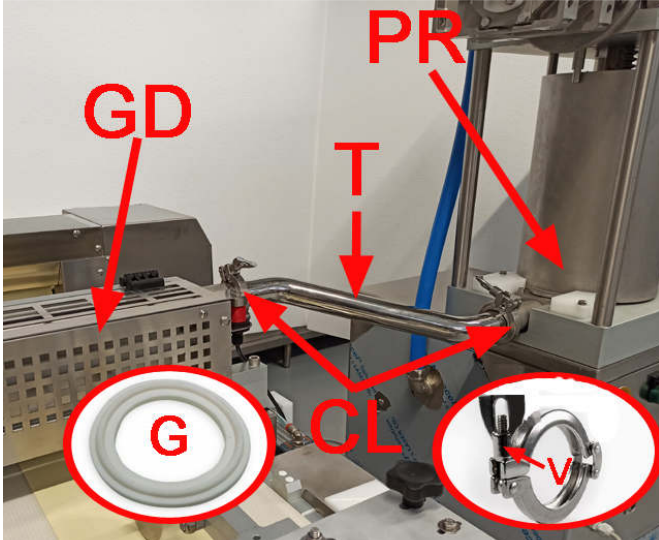
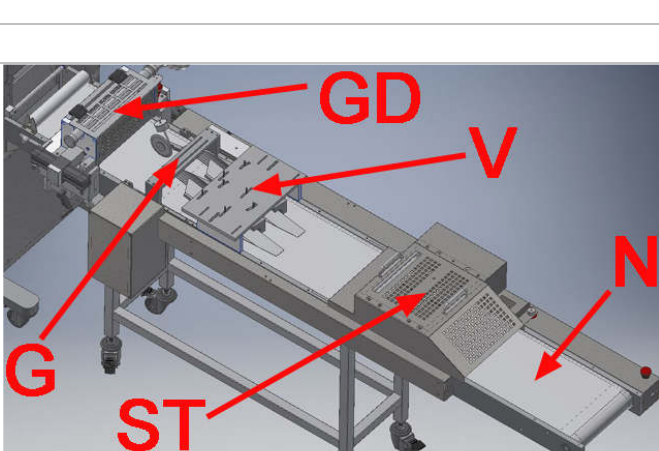
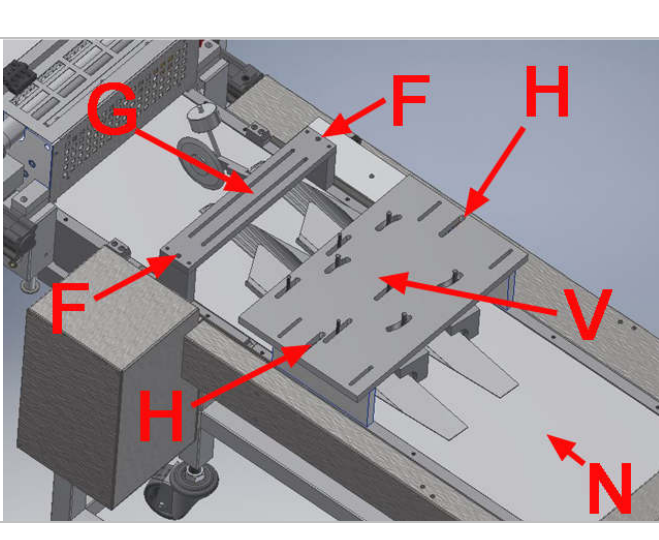
The closer is the valve than the filling entry into the doser, bigger is the pressure of the filling in that point, so the amount of filling that will come out of the doser will be bigger.

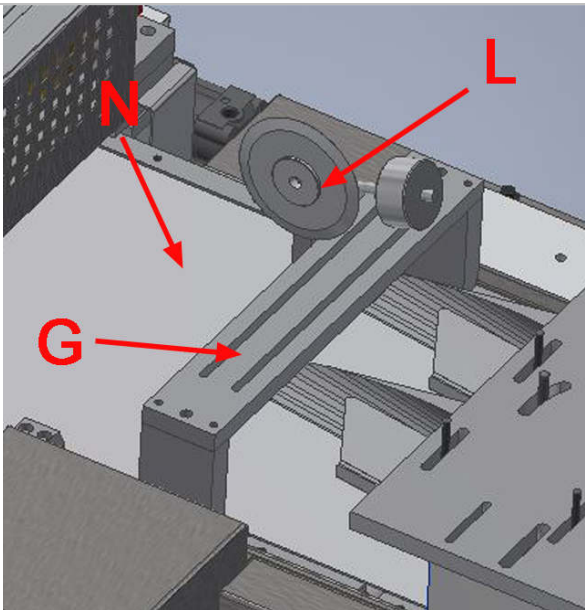
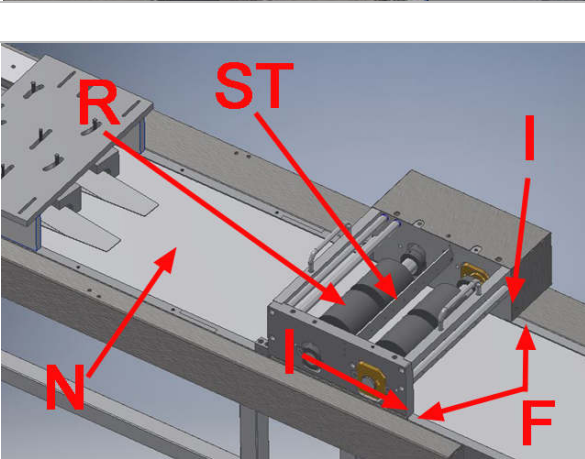
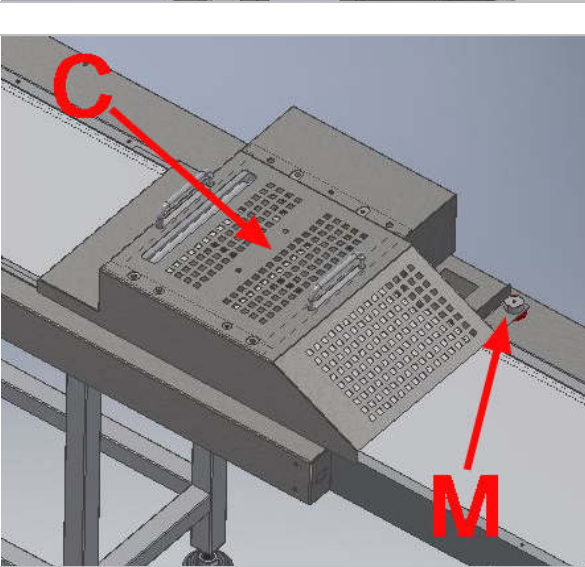

To level the quantity of filling, the valves [V1, V2, V3] can be adjusted by changing the position of the slots [A1, A2, A3]. This adjusts the size of the filling outlet and therefore the quantity of the filling that will come out during the dosing. Position all the valves [V1, V2, V3] with the slots [A1, A2, A3] at 45 ° as shown in the picture (if the slots are in vertical position the valves are completely open while if the slots are in horizontal position valves are completely closed).

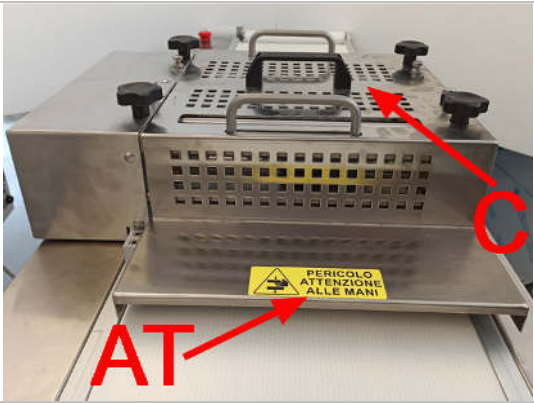
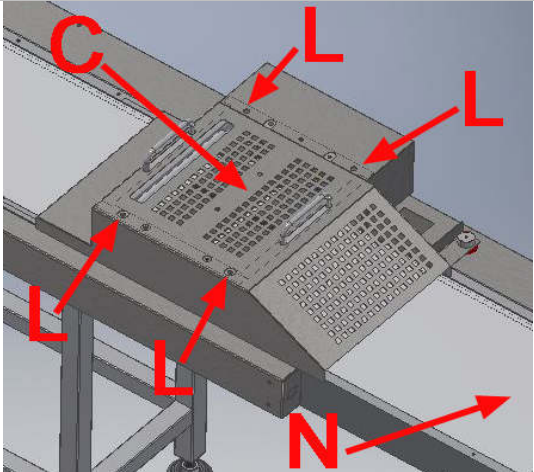


If the filling enters the dispenser [D] from the right side, the position of the valve [V3] remains unchanged while the valve [V2] will be slightly open, bringing the slot [A2] to a slightly more vertical position and the valve [V1] is slightly opened but more than the valve [V2], bringing the slot [A1] to a slightly more vertical position.

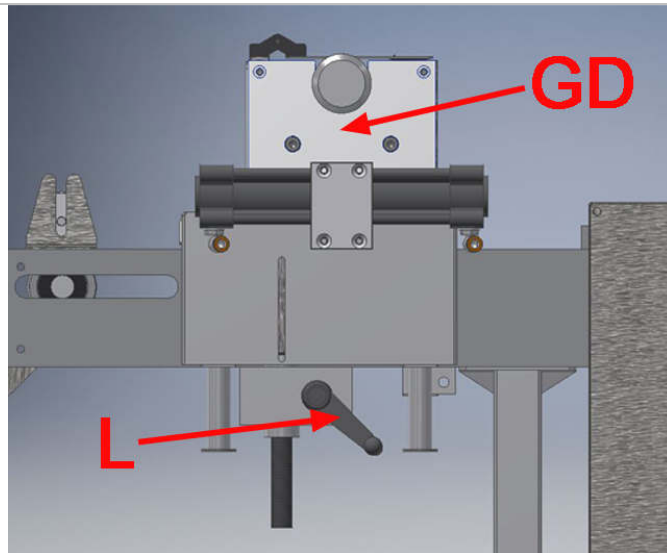
In other terms the valves will be closer near the inlet of the filling and more open in the farthest part, while the first valve near the inlet must always be very close (at approximately 45°).

	<p>Place the doser [D] in the dosing unit [GD] matching the slot [V] with the pin [P].</p>
	<p>Secure the doser [D] in the dosing unit [GD] by tightening the four screws [S].</p>
	<p>Place the pipe [T] in the dosing unit [GD] and secure it by tightening the six screws [S].</p>

	<p>Fix the pipe [T] to the filling pump [PR] using the clamp fitting [CL] shown in the picture.</p> <p>Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them.</p> <p>Lock the fitting [CL] by tightening the screw [V].</p> <p>Fix the pipe [T] to the dosing unit [GD] using the clamp fitting [CL] shown in the picture.</p> <p>Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them.</p> <p>Lock the fitting [CL] by tightening the screw [V].</p>
	<p>Place the components: cutting unit [G], folding tools [V] and mold [ST] on the belt [N] as shown in the picture.</p>
	<p>Place the cutting unit [G] on the belt [N] and secure it by screwing the two knobs [F].</p> <p>Place the folding tools [V] on the belt [N] and secure it by screwing the two knobs [H].</p>

	<p>If the machine is not used and the cutting unit [G] is mounted, lift the blade [L] as shown in the figure, to avoid damage to the belt [N].</p>
	<p>Place the mould [ST] on the belt. Make sure that the sides [I] of the mould assembly [ST] adhere perfectly to the surface of the sides [F] of the belt as shown in the picture. In case of difficulty to positioning the mold [ST] in uniform contact with the sides [F], slightly rotate the forming roller [R] back and forth to facilitate the coupling of the gears.</p>
	<p>Place the protection [C] over the mould.</p> <p>Before starting up the forming machine make sure that the protection [C] is inserted.</p> <p>If the protection [C] is not correctly positioned the safety sensor [M] will prevent the forming machine from starting.</p>
	<p>WARNING !!! If you do not position the mold correctly and do not fix it with the special fixing knobs, you could seriously damage the machine!</p>

	<div data-bbox="842 197 938 277"></div> <p>WARNING! Never insert fingers, tools or knives inside the mold cover [C]: as shown in the figure, the danger sticker [AT] is present.</p>
	<p>Lock the protection [C] and the mold to the belt [N] by screwing the four knobs [L].</p>
	<p>Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.</p> <p>The green light [QR] indicates the starting of the machine and remains always on during operation.</p> <p>If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance.</p>
	<p>The first screen will appear on the display allowing you to select the desired mould [see image].</p> <p>The parameters that will be modified will then be automatically stored in the device memory.</p> <p>Then at this point, type in the display the number corresponding to the mould group that has been inserted on the belt.</p>



Depending on the type and size of the overturned product, it is necessary to raise or lower the filling dosing unit [GD].

The larger the size of the overturned product, the greater the distance between the filling dosing unit [GD] and the belt must be.

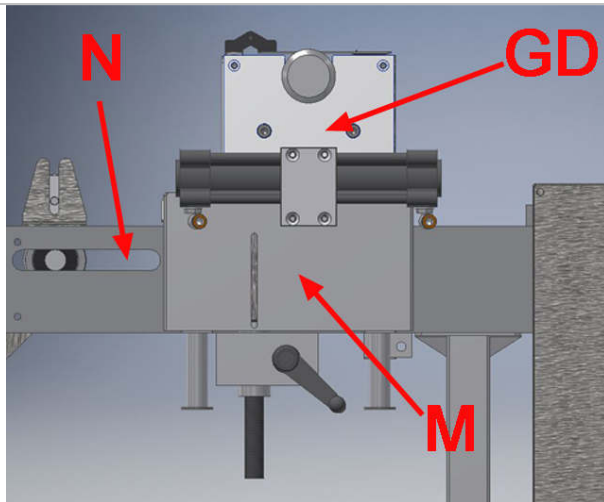
The smaller the size of the overturned product, the shorter the distance between the filling dosing unit [GD] and the belt must be.

Turn the lever [L] counterclockwise to lift the filling dosing unit [GD].

Turn the lever [L] clockwise to lower the filling dosing unit [GD].



Check the correct height of the filling dosing unit respect to the belt on the graduated scale [GS].



The safety switch, located under the casing [M], makes it possible not to lower the dosing unit [GD] excessively and, in this case, the machine does not lift the belt. The same safety switch allows the dosing unit [GD] to be brought closer to the belt [N] for the production of formats with continuous dosing by inhibiting the movement of the belt.



Place the rolling pin with sheet on rolling pin supports [SM].



The thickness of the sheet exiting the cylinder can be calibrated with a value between 0.2 mm and 2 mm.

To adjust the thickness of the sheet, stop the machine by pressing the red button [Q1], "CALIBRATOR", and turn the adjustment lever [Q4] "ADJUSTMENT OF THE SHEET" so as to set the desired thickness of the sheet, indicated (in mm) on the silk-screen printing (however it is good to adjust the thickness without sheet in the calibrators).


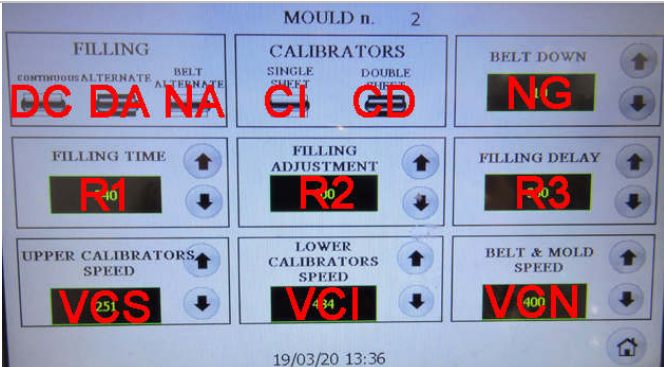
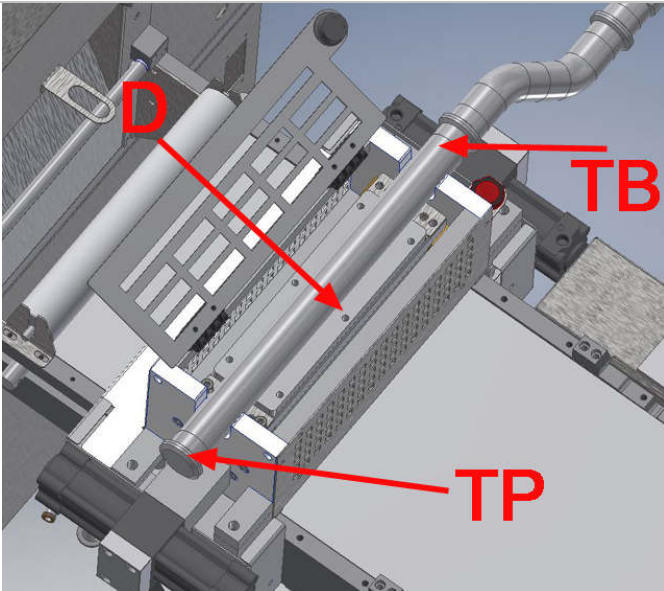

Press the green button [Q1], "CALIBRATOR", to start the calibrating rollers.

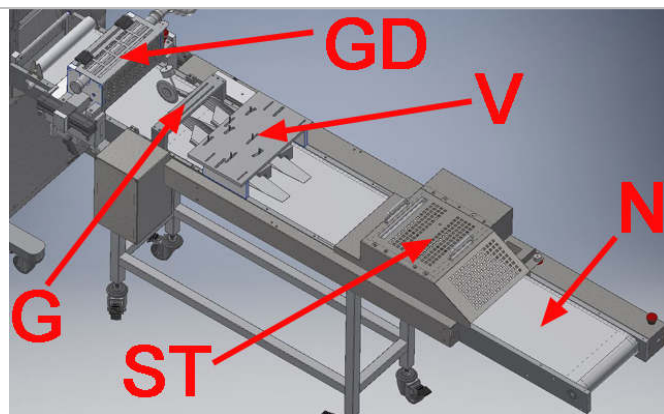
Insert the sheet into the calibrating rollers.

Check that there are no foreign materials to the machine components on the belt (e.g. screws, tools, etc.), they could seriously damage the machine.

Press the green button [Q2] "BELT" to start the motion of the belt and the mold.

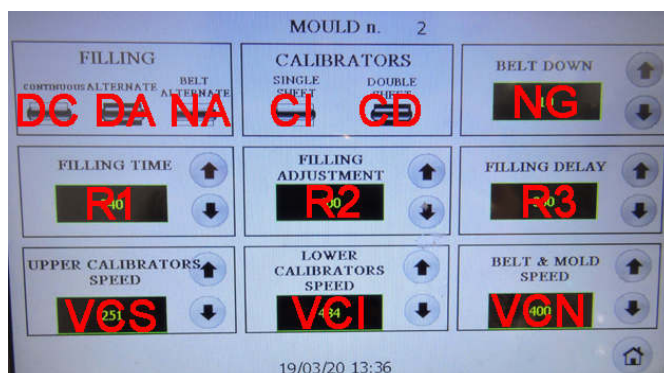
When the [Q1] "CALIBRATOR" and [Q2] "TAPE" buttons are lit it means that the machine is working the parts are moving..

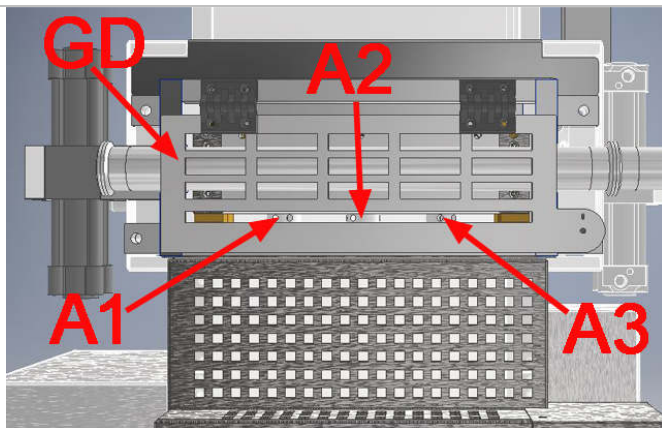
	WARNING !!! Never adjust the thickness [Q4] when the machine is in motion. You could damage the rollers.
	<p>It is possible to adjust the speed of the calibrating rollers by typing the desired value on the display in the "LOWER CALIBRATOR SPEED" [VCI] box.</p> <p>It is possible to adjust the speed of the belt by typing the desired value on the display in the "BELT AND MOLD SPEED" box [VN].</p> <p>N.B. The sheet must remain slightly stretched between the calibrator outlet and the pressure roller.</p>
	<p>Remove the cap [TP] and preload the filling doser [D]: press the green button [Q5], "FILLING" and fill the dispenser [D] until you see the filling in the tube [TB] near the cap [TP]. Stop the filling pump by pressing the red button [Q5] "FILLING" and secure the cap [TP].</p>
	WARNING !!! Do the preloading operation of the doser [D] always with the cap [TP] removed, otherwise an over-pressure will be created inside the dispenser [D] which can seriously damage it.



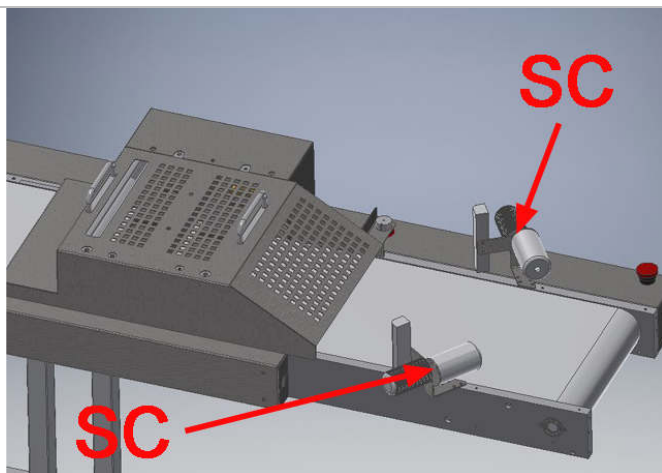
When the sheet has passed through the dosing unit [GD], the cutting unit [G], the folding tools [V] and the mould [ST], the stuffing pump can be started by pressing the green button [Q5] "FILLING". Set the desired dosing speed using the potentiometer [Q6] "FILLING SPEED".

It is possible to modify all the parameters that are on the display: the type of dosing [DC, DA, NA], the time the belt remains in the low position [NG], the opening duration of the shutter of the filling doser [R1], the filling dosing cycle start delay [R2] and the belt descent delay from the elevated position [R3] (see explanations on page 4).





During production It is possible to adjust the amount of filling coming out from the valves of the dosing unit [GD] by acting on the slots [A1, A2, A3] by inserting the supplied tool into one of the two holes on the valve and rotating it. Position the buttonholes [A1, A2, A3] at the correct angle to level the filling quantities, as explained on page 26.

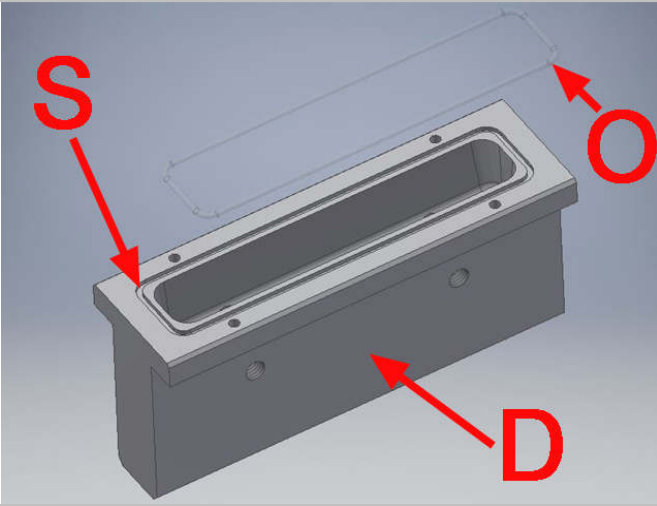
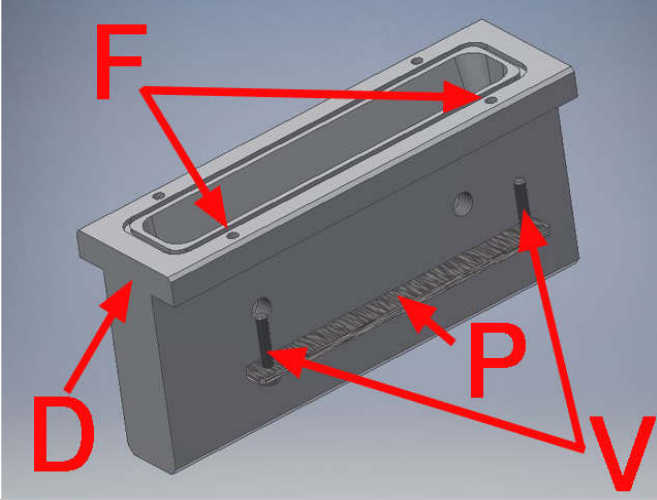
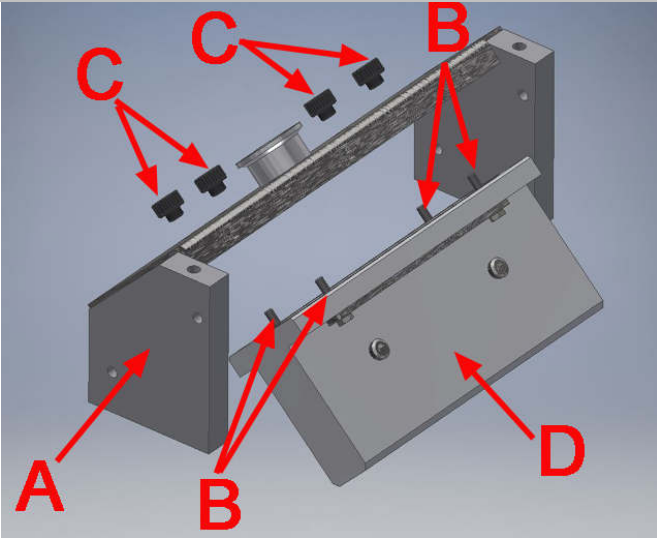


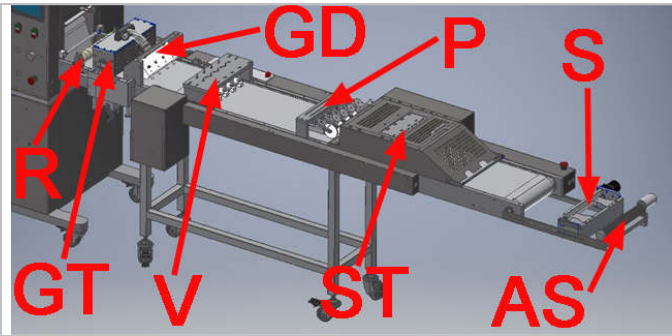
Place the possible sheet scraps (at least 50cm long after the roller) on the two scraps rollers [SC].

Synchronize by acting on the "SCRAPS" knob [Q7], the speed of the scraps rollers [SC] with the speed of sheet scraps coming from the mold: if the rollers [SC] turn too quickly or too slowly tear or do not remove the sheet.

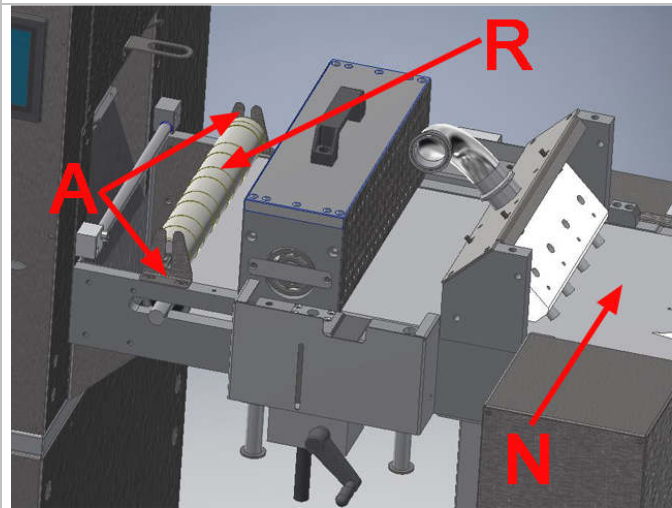


3.3 - “Ravioli del plin” production

	<p>Place the o-ring [O] in its seat [S] on the doser [D].</p>
	<p>Insert the screws [V] in the holes [F] positioning the plate [P] under the edge of the doser [D].</p>
	<p>Place the plate [A] on top of the doser [D].</p> <p>Screw the four knobs [C] to the four screw threads [B] to lock the plate [A] to the doser [D].</p>



Place the components: pressure roller [R], cutting unit [GT], dosing unit [GD], folding tools [V], pressure discs [P], mold [ST], scrap shaker [S] and scraps roller [AS] on the belt [N] as shown in the picture.



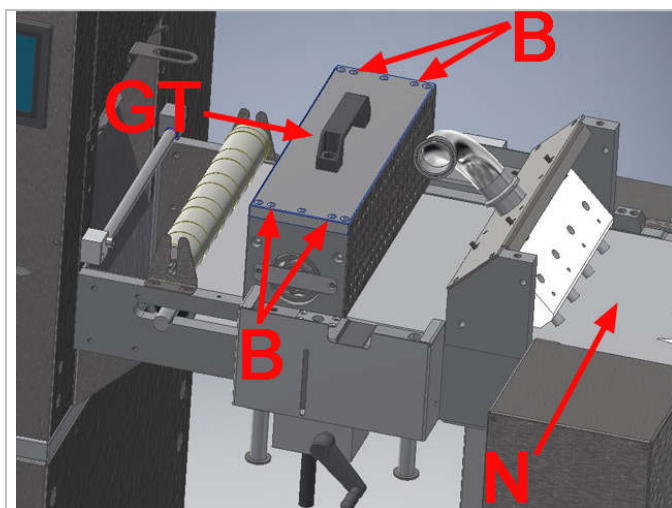
Place the pressure roller [R] between the slots [A] on the belt [N].
Place the narrowest band on the side opposite the control panel.



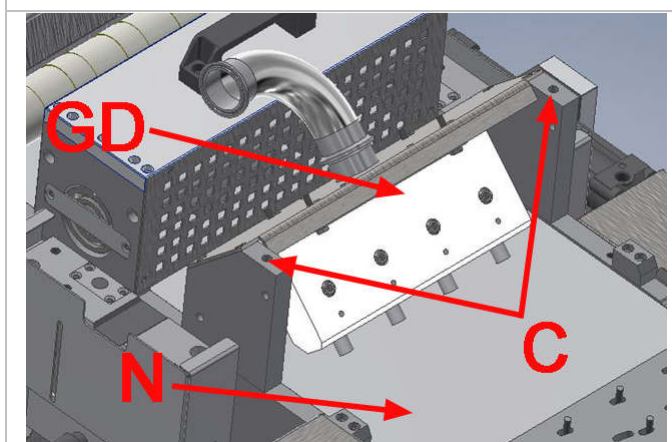
Bring the graduated scale indicator [GS] to 0 by turning the lever [L].



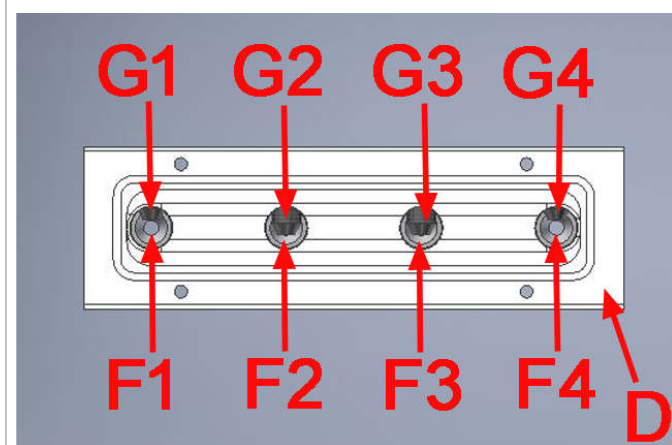
WARNING !!! Do not bring the [GS] indicator below the value 0.



Position the cutting unit [GT] on the belt [N] and secure it by screwing the four knobs [B].



Position the dosing unit [GD] on the belt [N] and secure it by screwing the two knobs [C].



It is possible to adjust the dosing using the grub screws [G1,G2,G3,G4] on the doser [D] using the appropriate tool.

Depending on the position of the hole on the doser, the filling will have a different dosing pressure and therefore a different amount of filling will come out of the doser.

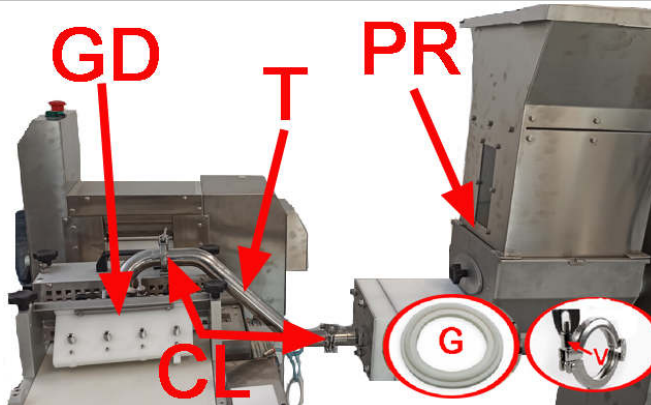
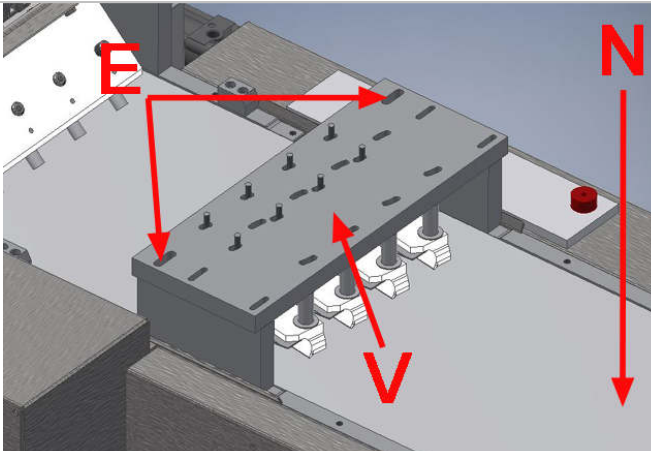
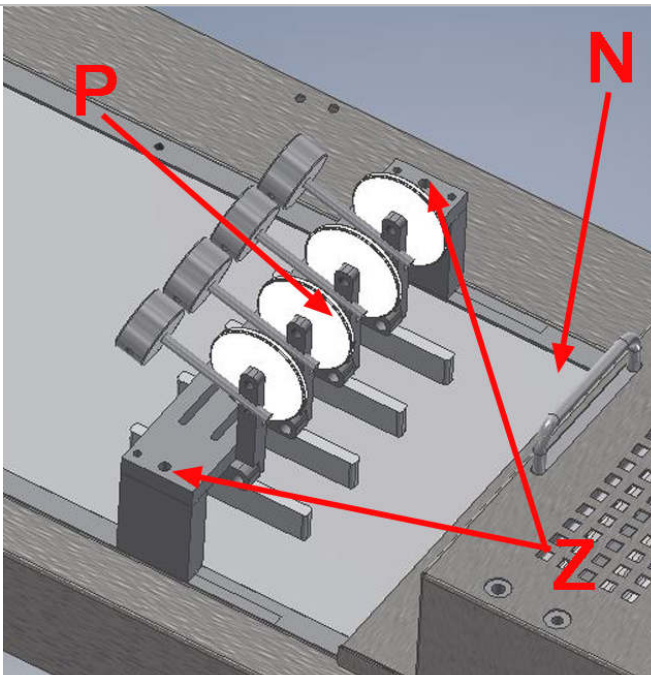

The closer is the hole than the filling entry into the doser, bigger is the pressure of the filling in that point, so the amount of filling that will come out of the doser will be bigger.

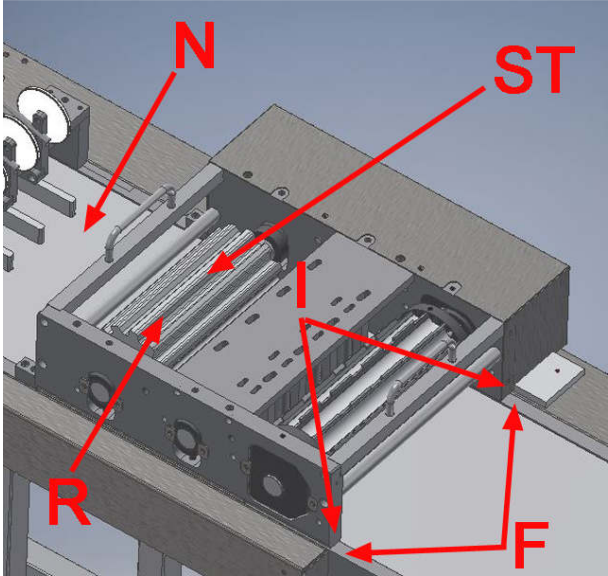
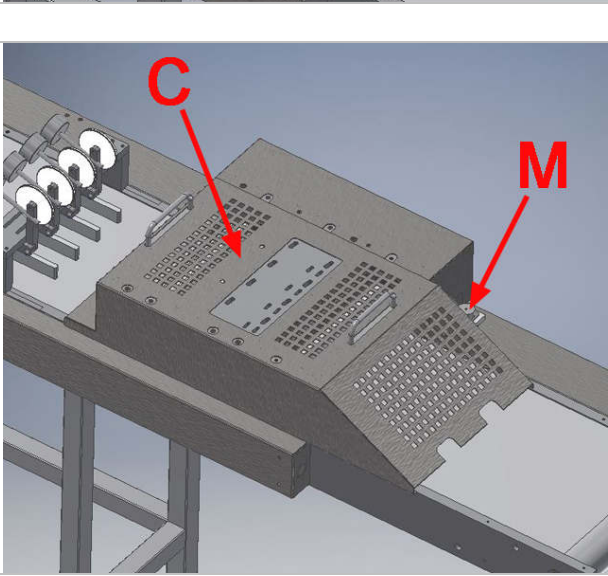



To level the quantity of filling, the grub screws [G1,G2,G3,G4] can be adjusted for changing the size of the exit holes [F1,F2,F3,F4] therefore the quantity of the filling that will come out during the dosing.

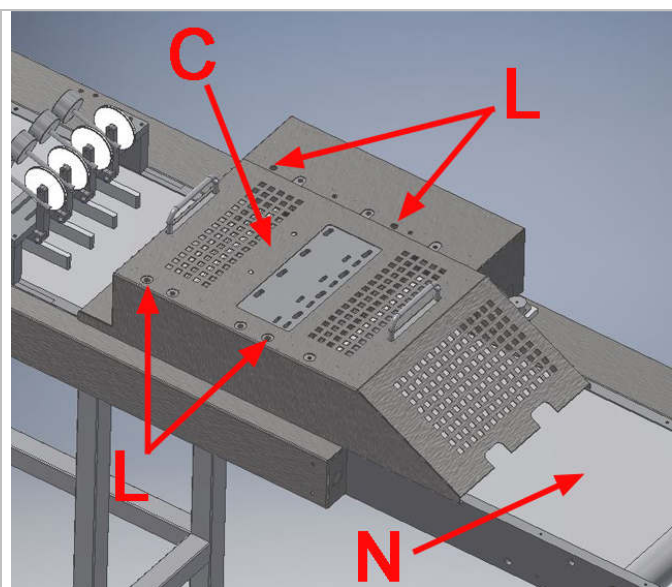
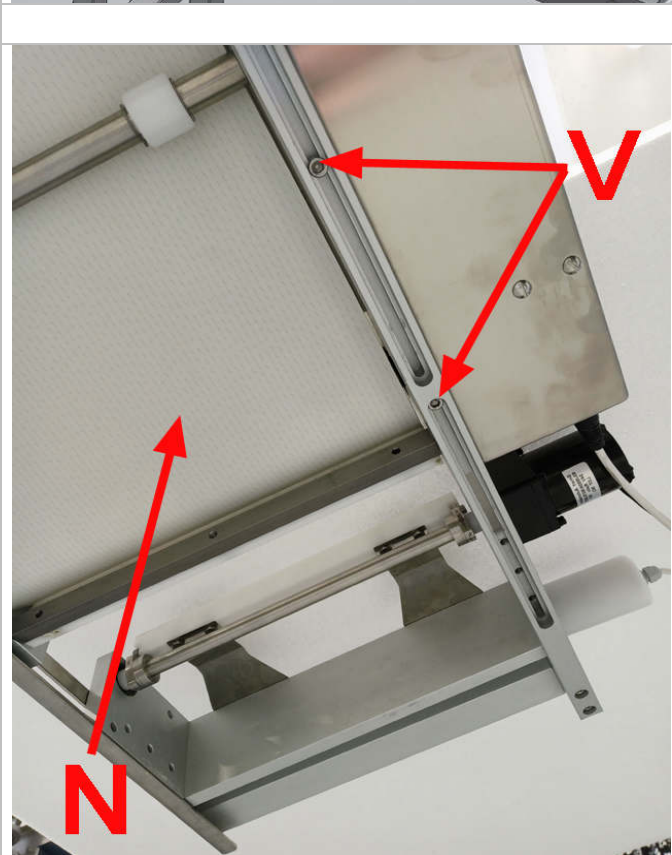
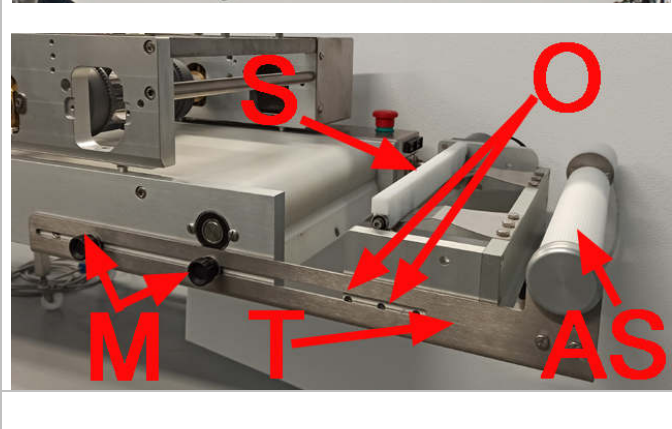
The more the grub screws [G1, G2, G3, G4] are screwed into the holes [F1, F2, F3, F4] of the doser [D], the smaller the size of the filling outlet holes will be.

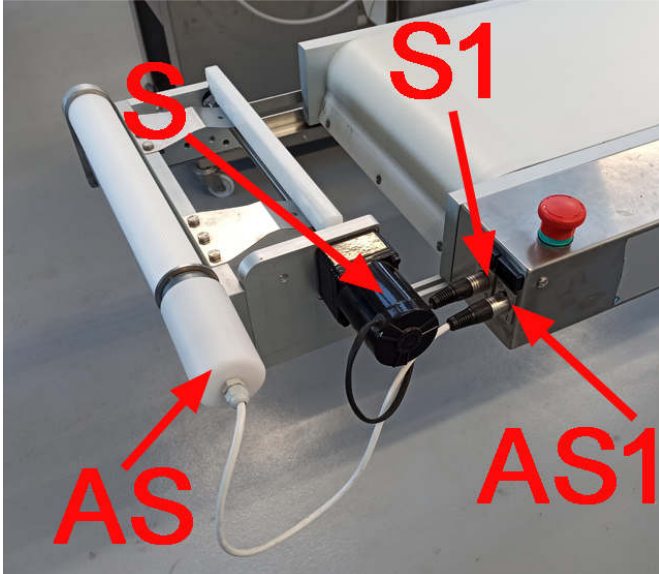


The filling comes in the center of the doser, therefore the holes [F2, F3] will have the grub screws [G2, G3] more screwed than the holes [F1, F4] where the grub screws [G1, G4] will be less screwed, as shown in the figure .




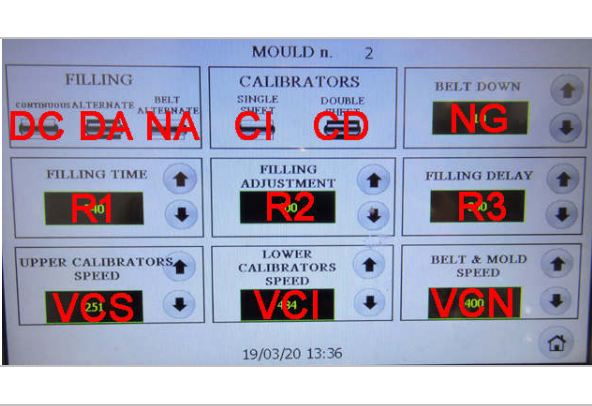
This adjustment can be made during production.

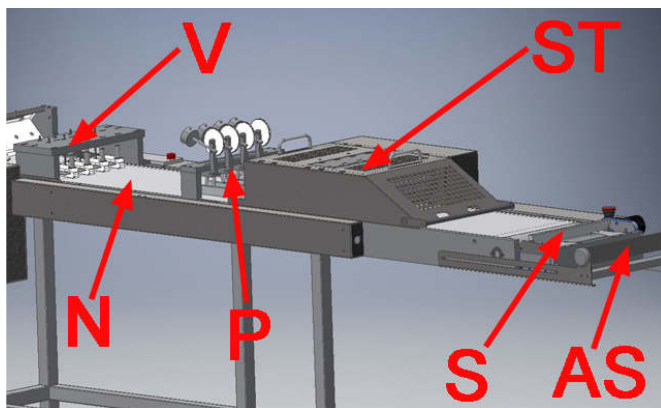
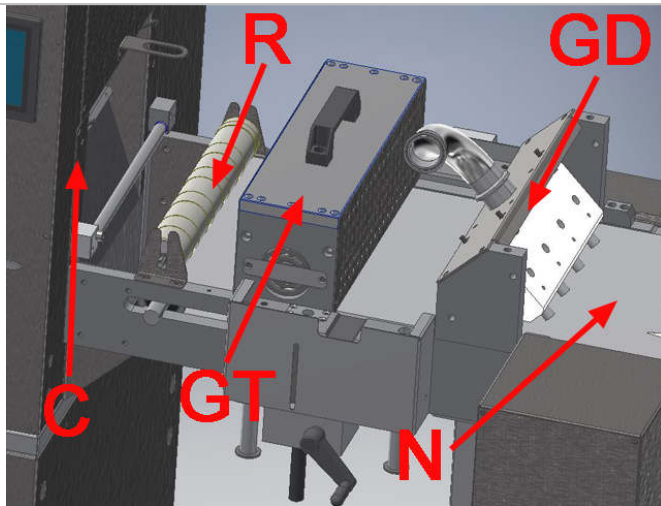
	<p>Fix the pipe [T] to the filling pump [PR] using the clamp fitting [CL] shown in the picture. Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them. Lock the fitting [CL] by tightening the screw [V].</p> <p>Fix the pipe [T] to the dosing unit [GD] using the clamp fitting [CL] shown in the picture. Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them. Lock the fitting [CL] by tightening the screw [V].</p>
	<p>Place the folding tools [V] on the belt [N] and secure it by screwing the two knobs [E].</p>
	<p>Place the pressure discs [P] on the belt [N] and secure them by screwing the two knobs [Z].</p> <p>If the machine is not used, leave the pressure discs [P] in the elevated position as shown in the figure to avoid damaging the belt [N].</p>
	<p>WARNING !!! During production, place the pressure discs [P] on the belt [N] only when the sheet has already passed through them.</p>

	<p>Place the mould [ST] on the belt. Make sure that the sides [I] of the mould assembly [ST] adhere perfectly to the surface of the sides [F] of the belt as shown in the picture. In case of difficulty to positioning the mold [ST] in uniform contact with the sides [F], slightly rotate the forming roller [R] back and forth to facilitate the coupling of the gears.</p>
	<p>Place the protection [C] over the mould.</p> <p>Before starting up the forming machine make sure that the protection [C] is inserted.</p> <p>If the protection [C] is not correctly positioned the safety sensor [M] will prevent the forming machine from starting.</p>
	<p>WARNING !!! If you do not position the mold correctly and do not fix it with the special fixing knobs, you could seriously damage the machine!</p>
	 <p>WARNING! Never insert fingers, tools or knives inside the mold cover [C]: as shown in the figure, the danger sticker [AT] is present.</p>

 <p>A 3D perspective diagram of the machine's mold assembly. Red arrows point to various components: 'C' points to a locking mechanism on the top surface, 'L' points to four knobs on the sides of the mold, and 'N' points to the mold's base where it meets the belt.</p>	<p>Lock the protection [C] and the mold to the belt [N] by screwing the four knobs [L].</p>
 <p>A photograph showing the interior of the machine. Red arrows point to 'N', which is the belt, and 'V', which are two screws located underneath the belt.</p>	<p>Slightly unscrew the two screws [V] under the belt [N] and the two knobs [M]. Bring the structure [T] forward as far as it will go. Place the scraps shaker [S] in front of the scraps roller [AS] and secure it with the four screws [O] two on each side.</p>
 <p>A photograph of the scrap handling section of the machine. Red arrows point to 'S' (scraps shaker), 'O' (four screws used for securing), 'M' (two knobs), 'T' (the main structure), and 'AS' (scraps roller).</p>	

	<p>Connect the scraps roller [AS] to the socket [AS1] as shown in the figure.</p> <p>Connect the scraps shaker [S] to the socket [S1] as shown in the figure.</p>
	<p>Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.</p> <p>The green light [QR] indicates the starting of the machine and remains always on during operation.</p> <p>If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance.</p>
	<p>The first screen will appear on the display allowing you to select the desired mould [see image].</p> <p>The parameters that will be modified will then be automatically stored in the device memory.</p> <p>Then at this point, type in the display the number corresponding to the mould group that has been inserted on the belt.</p>

	<p>Place the rolling pin with sheet on rolling pin supports [SM].</p>
	<p>The thickness of the sheet exiting the cylinder can be calibrated with a value between 0.2 mm and 2 mm.</p> <p>To adjust the thickness of the sheet, stop the machine by pressing the red button [Q1], "CALIBRATOR", and turn the adjustment lever [Q4] "ADJUSTMENT OF THE SHEET" so as to set the desired thickness of the sheet, indicated (in mm) on the silk-screen printing (however it is good to adjust the thickness without sheet in the calibrators).</p> <p>Press the green button [Q1], "CALIBRATOR", to start the calibrating rollers. Insert the sheet into the calibrating rollers.</p> <p>Check that there are no foreign materials to the machine components on the belt (e.g. screws, tools, etc.), they could seriously damage the machine.</p> <p>Press the green button [Q2] "BELT" to start the motion of the belt and the mold.</p> <p>When the [Q1] "CALIBRATOR" and [Q2] "TAPE" buttons are lit it means that the machine is working the parts are moving.</p>
	<p>WARNING !!! Never adjust the thickness [Q4] when the machine is in motion. You could damage the rollers.</p>
	<p>It is possible to adjust the speed of the calibrating rollers by typing the desired value on the display in the "LOWER CALIBRATOR SPEED" [VCI] box.</p> <p>It is possible to adjust the speed of the belt by typing the desired value on the display in the "BELT AND MOLD SPEED" box [VN].</p> <p>N.B. The sheet must remain slightly stretched between the calibrator outlet and the pressure roller.</p>

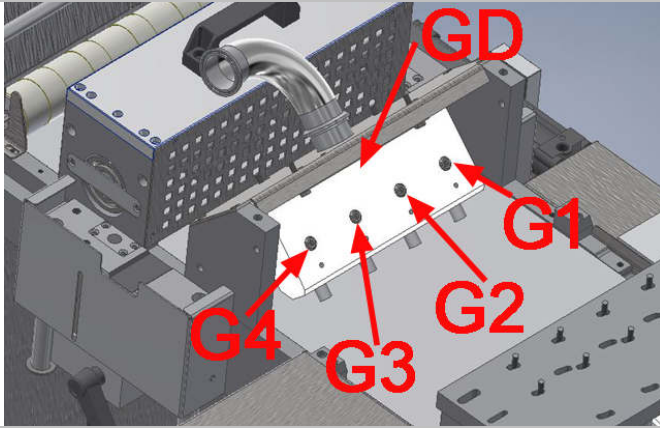


To produce “plin ravioli” carry out the following operations:

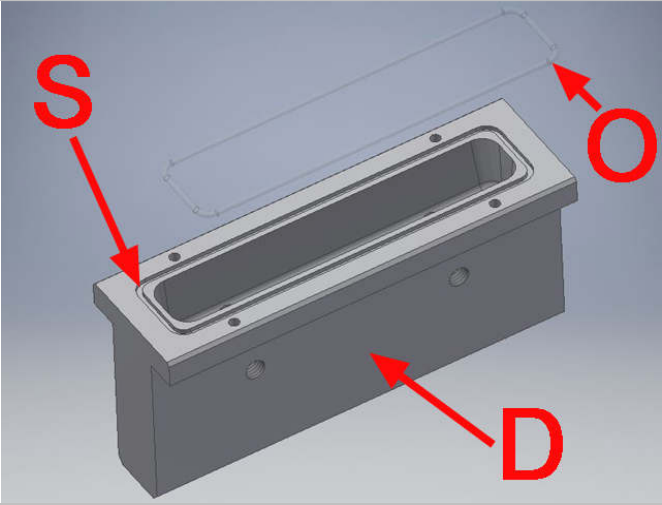
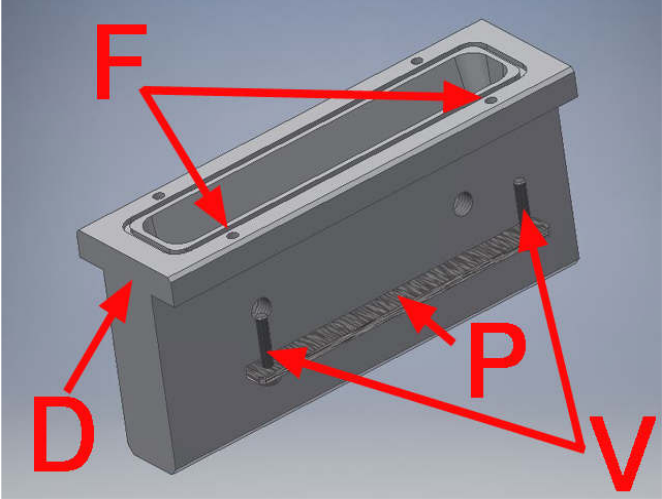
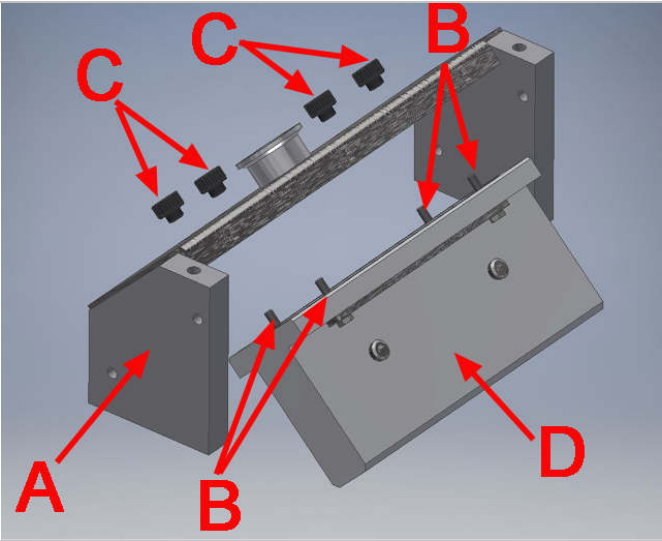
- 1.** Turn the [Q3] switch to “SLOW” in order to make the machine proceed slowly;
- 2.** Take the sheet out of the calibrators [C] and pass it under the pressure roller [R];
- 3.** Pass the sheet under the cutting discs [GT], taking care that the sheet does not get stuck;
- 4.** Pass the strips of sheet under the dosing unit [GD] that is still off;
- 5.** When the strips of sheet are between the dosing group [GD] and the folding tools [V] stop the machine by pressing the red buttons [Q1] “CALIBRATOR” and [Q2] “BELT” and make a longitudinal cut on the strips of sheet to straighten them;
- 6.** Switch on the machine by pressing the green buttons [Q1] “CALIBRATOR” and [Q2] “BELT” and, if necessary, ease the passage of the sheet strips into the folding tools [V];
- 7.** When the strips of sheet are between the folding tools [V] and the pressure discs [P], stop the machine by pressing the red buttons [Q1] “CALIBRATOR” and [Q2] “BELT” and make a new longitudinal cut at the uneven folded strips of sheet to level them, keeping the sheet pressed on the belt [N];
- 8.** Switch on the machine by pressing the green buttons [Q1] “CALIBRATOR” and [Q2] “BELT”, in order to pass the strips of sheet under the pressure discs [P];
- 9.** As soon as the strips of sheet pass the pressure discs [P], which are still in the elevated position, place the pressure discs [P] on the sheet. It's important not to do it before, because, if the strips of sheet are inserted under the pressure discs [P], they get stuck;
- 10.** Pass the strips of sheet under the mould [ST] and check that they all come out, that none of them get stuck inside the mould;
- 11.** Turn the [Q3] switch to “FAST” in order to start the production at regular speed;
- 12.** Place the sheet scraps (at least 50cm long after the roller) on the scraps shaker [S] and on the scraps roller [AS];
- 13.** Start the filling pump by pressing the green button [Q5] “FILLING” and adjust the amount of filling by acting on the potentiometer [Q6] in order to distribute it evenly on the strips of sheet: the filling must not be too slow with respect to the belt, because it would tear, and not too fast with respect to the belt because it would form a serpentine.

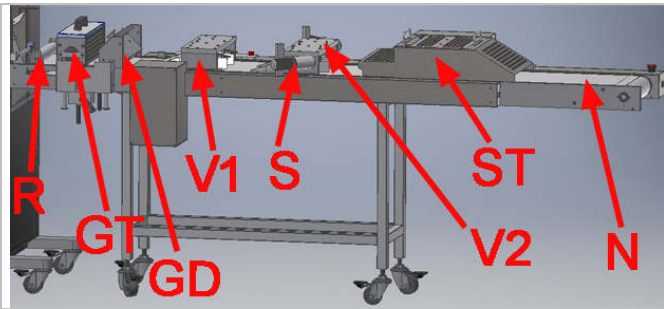


WARNING !!! In case of forming problems during the production of “plin ravioli” do not change the factory settings, but contact the assistance center.

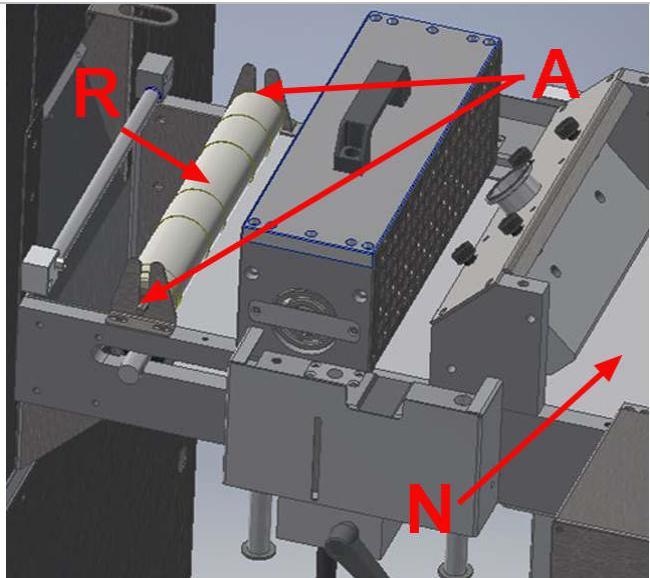


During production It is possible to adjust the amount of filling coming out from the holes of the dosing unit [GD] by acting on the grub screws [A1, A2, A3] by using the supplied tool. Screw or unscrew the grub screws [G4, G3, G2, G1] in order to level the quantity of filling, as explained on page 38.

3.4 - “Cannelloni” production	
	Place the o-ring [O] in its seat [S] on the doser [D].
	Insert the screws [V] in the holes [F] positioning the plate [P] under the edge of the doser [D].
	Place the plate [A] on top of the doser [D]. Screw the four knobs [C] to the four screw threads [B] to lock the plate [A] to the doser [D].



Place the components: pressure roller [R], cutting unit [GT], dosing unit [GD], folding tools [V1 and V2], mold [ST] (or guillotine cutting unit) and scraps roller [AS] (one on each side) on the belt [N] as shown in the picture.



Place the pressure roller [R] between the slots [A] on the belt [N].
Place the narrowest band on the side opposite the control panel.

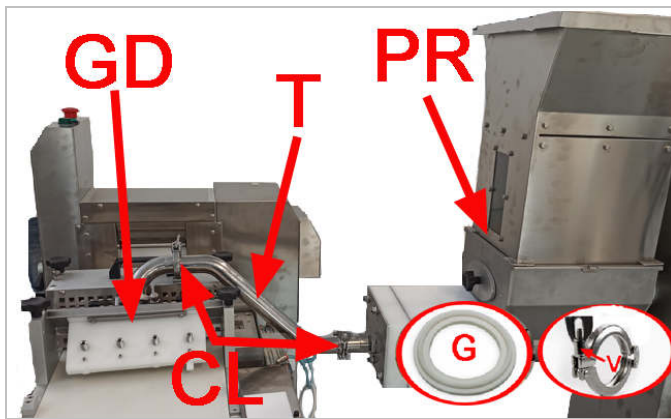


Bring the graduated scale indicator [GS] to 0 by turning the lever [L].

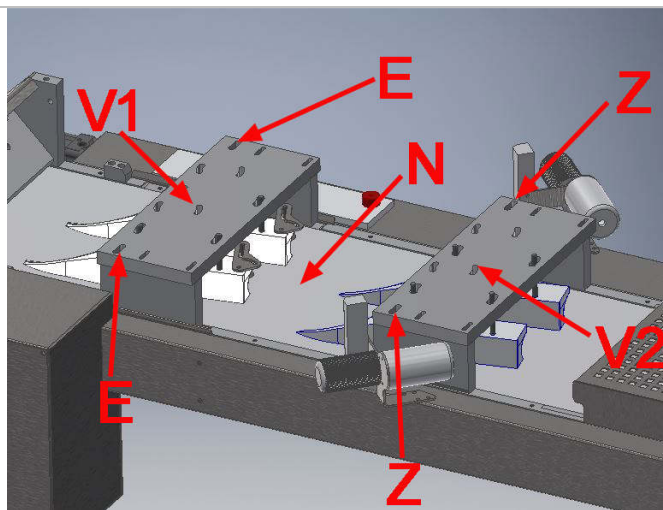


WARNING !!! Do not bring the [GS] indicator below the value 0.

	<p>Position the cutting unit [GT] on the belt [N] and secure it by screwing the four knobs [B].</p>
	<p>Position the dosing unit [GD] on the belt [N] and secure it by screwing the two knobs [C].</p>
	<p>It is possible to adjust the dosing using the grub screws [G1,G2] on the doser [D] using the appropriate supplied tool.</p> <p>Depending on the position of the hole on the doser, the filling will have a different dosing pressure and therefore a different amount of filling will come out of the doser.</p> <p>The closer is the hole than the filling entry into the doser, bigger is the pressure of the filling in that point, so the amount of filling that will come out of the doser will be bigger.</p> <p>To level the quantity of filling, the grub screws [G1,G2] can be adjusted for changing the size of the exit holes [F1,F2] therefore the quantity of the filling that will come out during the dosing.</p> <p>The more the grub screws [G1,G2] are screwed into the holes [F1, F2] of the doser [D], the smaller the size of the filling outlet holes will be.</p> <p>The filling comes in the center of the doser, therefore the holes [F1, F2] will have the grub screws [G1, G2] screwed in about equally.</p> <p>This adjustment can be made during production.</p>



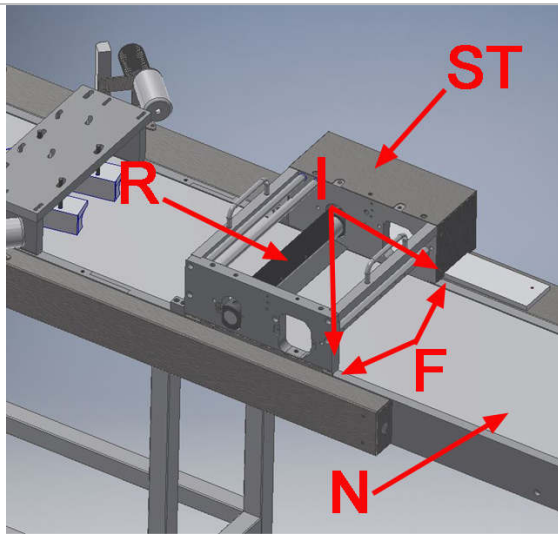
Fix the pipe [T] to the filling pump [PR] using the clamp fitting [CL] shown in the picture.
Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them.
Lock the fitting [CL] by tightening the screw [V].
Fix the pipe [T] to the dosing unit [GD] using the clamp fitting [CL] shown in the picture.
Close the two flanged ends of the pipes inside the fitting [CL], taking care to position the gasket [G] (highlighted in the picture) in the center of them.
Lock the fitting [CL] by tightening the screw [V].



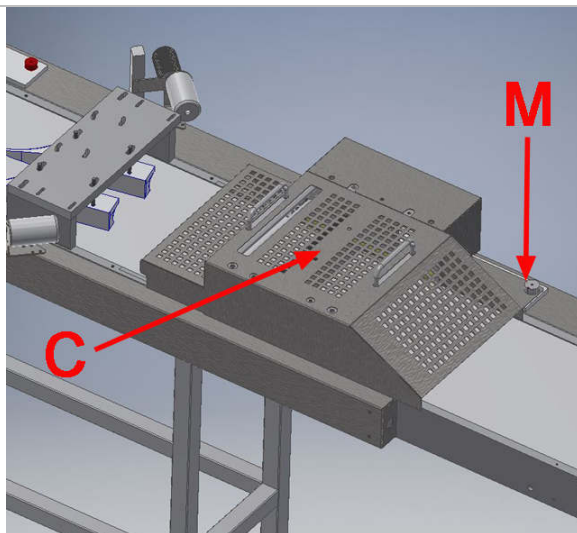
Place the folding tool [V1] on the belt [N] and secure it screwing the two knobs [E].

Place the folding tool [V2] on the belt [N] and secure it screwing the two knobs [E].

3.4.1. Fixed length “cannelloni” cutting with mold



Place the mould [ST] on the belt.
Make sure that the sides [I] of the mould assembly [ST] adhere perfectly to the surface of the sides [F] of the belt as shown in the picture.
In case of difficulty to positioning the mold [ST] in uniform contact with the sides [F], slightly rotate the forming roller [R] back and forth to facilitate the coupling of the gears.



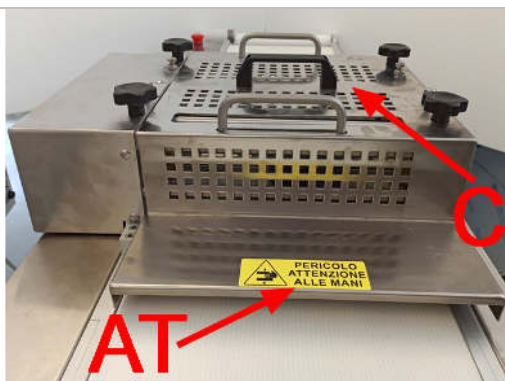
Place the protection [C] over the mould.

Before starting up the forming machine make sure that the protection [C] is inserted.

If the protection [C] is not correctly positioned the safety sensor [M] will prevent the forming machine from starting.



WARNING !!! If you do not position the mold correctly and do not fix it with the special fixing knobs, you could seriously damage the machine!



WARNING! Never insert fingers, tools or knives inside the mold cover [C]: as shown in the figure, the danger sticker [AT] is present.

	<p>Lock the protection [C] and the mold to the belt [N] by screwing the four knobs [L].</p>
	<p>Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.</p> <p>The green light [QR] indicates the starting of the machine and remains always on during operation.</p> <p>If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance.</p>
	<p>Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.</p> <p>The green light [QR] indicates the starting of the machine and remains always on during operation.</p> <p>If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance.</p>



Place the rolling pin with sheet on rolling pin supports [SM].



The thickness of the sheet exiting the cylinder can be calibrated with a value between 0.2 mm and 2 mm.

To adjust the thickness of the sheet, stop the machine by pressing the red button [Q1], "CALIBRATOR", and turn the adjustment lever [Q4] "ADJUSTMENT OF THE SHEET" so as to set the desired thickness of the sheet, indicated (in mm) on the silk-screen printing (however it is good to adjust the thickness without sheet in the calibrators).

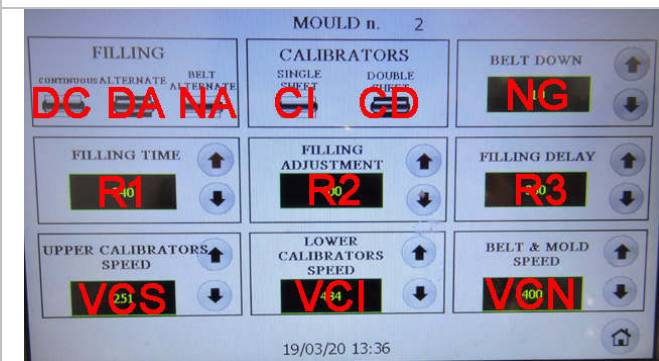
Press the green button [Q1], "CALIBRATOR", to start the calibrating rollers.
Insert the sheet into the calibrating rollers.

Check that there are no foreign materials to the machine components on the belt (e.g. screws, tools, etc.), they could seriously damage the machine.

Press the green button [Q2] "BELT" to start the motion of the belt and the mold.
When the [Q1] "CALIBRATOR" and [Q2] "TAPE" buttons are lit it means that the machine is working the parts are moving.



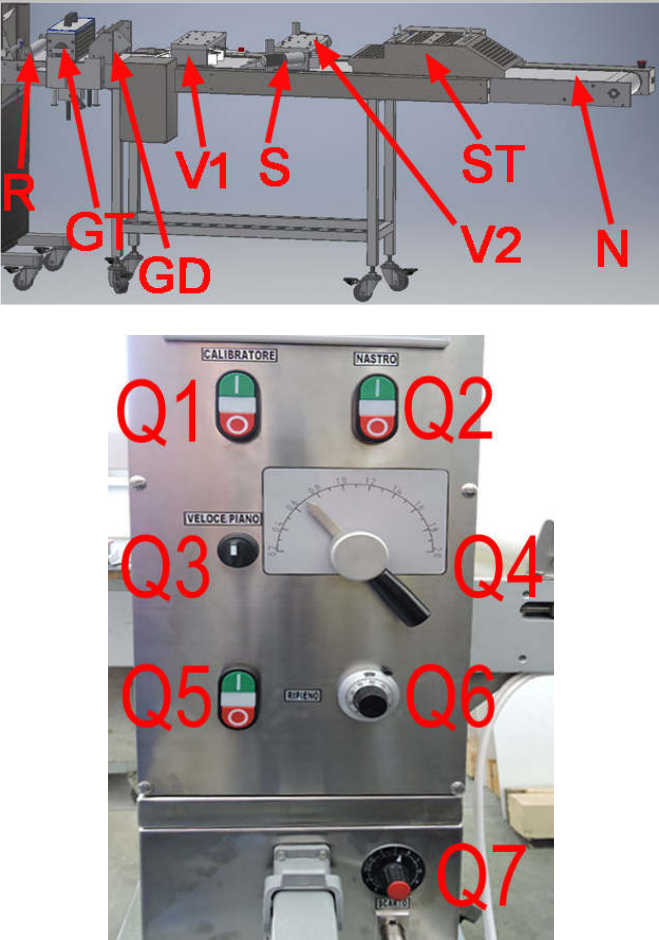
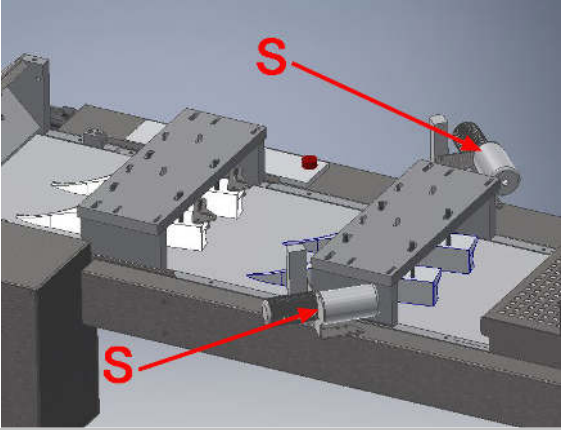
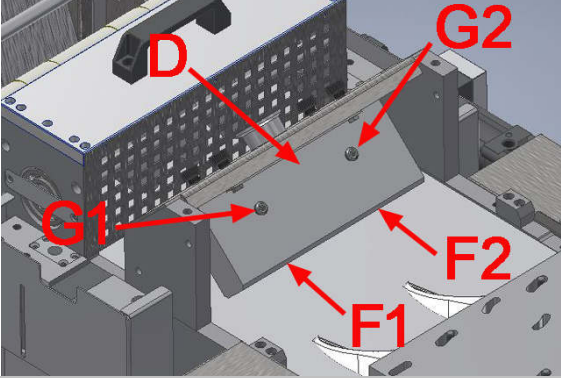
WARNING !!! Never adjust the thickness [Q4] when the machine is in motion. You could damage the rollers.



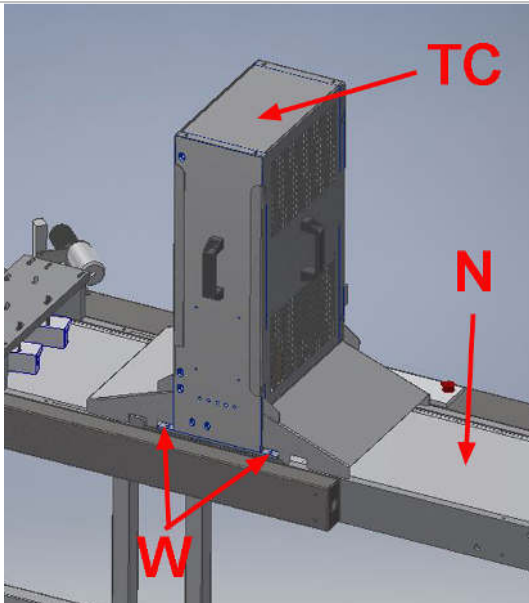
It is possible to adjust the speed of the calibrating rollers by typing the desired value on the display in the "LOWER CALIBRATOR SPEED" [VCI] box.

It is possible to adjust the speed of the belt by typing the desired value on the display in the "BELT AND MOLD SPEED" box [VN].

N.B. The sheet must remain slightly stretched between the calibrator outlet and the pressure roller.

	<p>Place the sheet on the belt [N] and check that the sheet passes under the pressure roller [R], under the cutting unit [GT], under the dosing unit [GD] without get stuck.</p> <p>Check that the sheet is overturned correctly by the folding tools [V1, V2].</p> <p>When the sheet has also passed through the mold [ST], the filling pump can be started by pressing the "FILLING ON / OFF" button [Q5]. Set the desired dosing speed on the potentiometer [Q6] "FILLING SPEED".</p>
	<p>Place the possible sheet scraps (at least 50cm long after the roller) on the two scraps rollers [SC].</p> <p>Synchronize by acting on the "SCRAPS" knob [Q7], the speed of the scraps rollers [SC] with the speed of sheet scraps coming from the mold: if the rollers [SC] turn too quickly or too slowly tear or do not remove the sheet.</p>
	<p>During production It is possible to adjust the amount of filling coming out from the holes [F1,F2] of the doser [D] by acting on the grub screws [G1,G2] by using the supplied tool. Screw or unscrew the grub screws [G2,G1] in order to level the quantity of filling, as explained on page 48.</p>

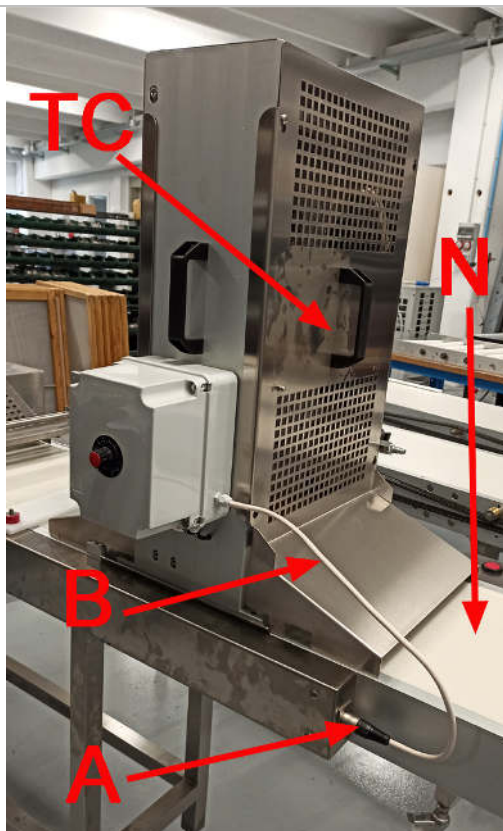
3.4.2. Variable length cannelloni cut with guillotine



Place the guillotine cutting unit [TC] on the belt [N] and fix it by screwing the four screws [W] two on each side.



WARNING !!! Handle the guillotine cutting system [TC] in two people being very careful because it is very heavy!



Connect the cable [B] of the guillotine cutting unit [TC] into the socket [A] on the left side of the belt [N], as shown in the picture.



Connect the compressed air system of the plant to the compressed air supply [A] of the guillotine cutting unit [TC].

Turn the knob of the tap [R] counterclockwise to allow compressed air to enter in the guillotine cutting unit [TC].

Observe the pressure of the compressed air on the pressure gauge [MAN] and adjust it to about 2.2 bar using the knob [RP]. After pulling the knob [RP] upwards, it is possible to increase the pressure by turning the knob [RP] clockwise or decrease it by turning it counterclockwise. Once the adjustment is complete, press the knob downwards to lock the adjustment.



Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.

The green light [QR] indicates the starting of the machine and remains always on during operation.




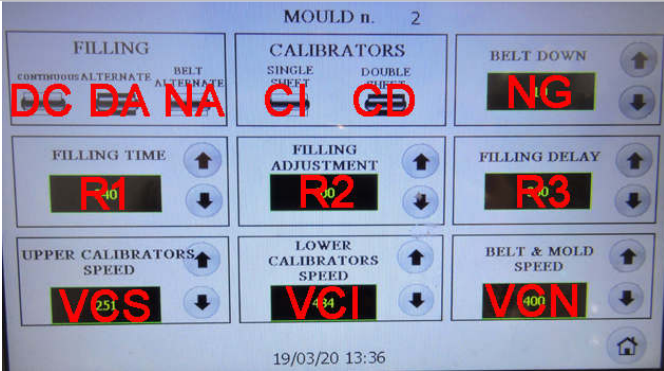
If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance

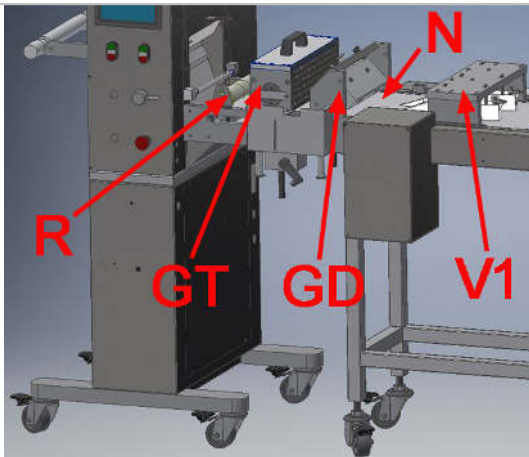


Connect the machine to the power supply and turn the machine general switch [QG] clockwise by a quarter turn.

The green light [QR] indicates the starting of the machine and remains always on during operation.

If the green light [QR] is not on, check that the machine is correctly connected to the power supply and if necessary call the technical assistance.

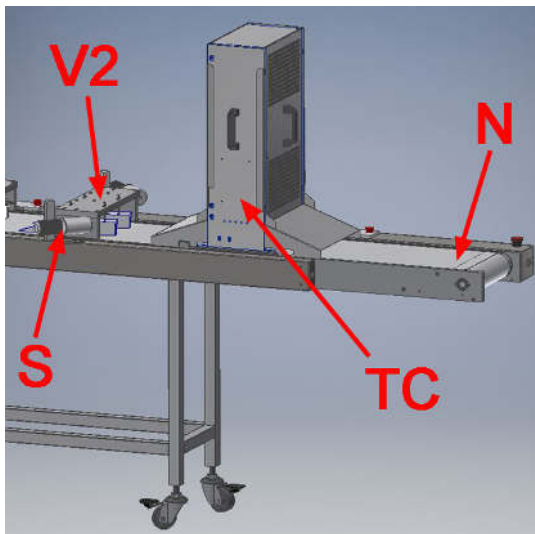
	<p>Place the rolling pin with sheet on rolling pin supports [SM].</p>
	<p>The thickness of the sheet exiting the cylinder can be calibrated with a value between 0.2 mm and 2 mm.</p> <p>To adjust the thickness of the sheet, stop the machine by pressing the red button [Q1], "CALIBRATOR", and turn the adjustment lever [Q4] "ADJUSTMENT OF THE SHEET" so as to set the desired thickness of the sheet, indicated (in mm) on the silk-screen printing (however it is good to adjust the thickness without sheet in the calibrators).</p> <p>Press the green button [Q1], "CALIBRATOR", to start the calibrating rollers.</p> <p>Insert the sheet into the calibrating rollers.</p> <p>Check that there are no foreign materials to the machine components on the belt (e.g. screws, tools, etc.), they could seriously damage the machine.</p> <p>Press the green button [Q2] "BELT" to start the motion of the belt and the mold.</p> <p>When the [Q1] "CALIBRATOR" and [Q2] "TAPE" buttons are lit it means that the machine is working the parts are moving.</p>
	<p>WARNING !!! Never adjust the thickness [Q4] when the machine is in motion. You could damage the rollers.</p>
	<p>It is possible to adjust the speed of the calibrating rollers by typing the desired value on the display in the "LOWER CALIBRATOR SPEED" [VCI] box.</p> <p>It is possible to adjust the speed of the belt by typing the desired value on the display in the "BELT AND MOLD SPEED" box [VN].</p> <p>N.B. The sheet must remain slightly stretched between the calibrator outlet and the pressure roller.</p>

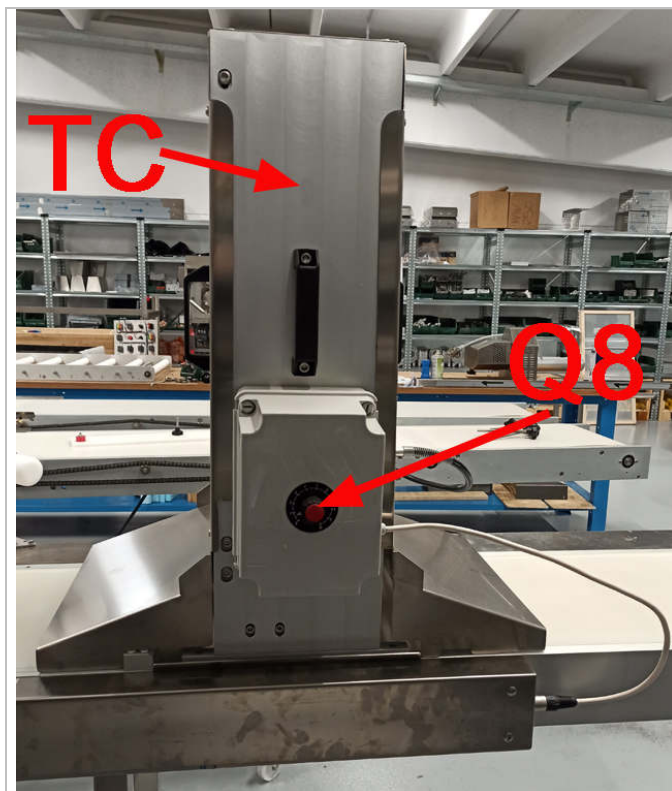


Place the sheet on the belt [N] and check that the sheet passes under the pressure roller [R], under the cutting unit [GT], under the dosing unit [GD] without get stuck.

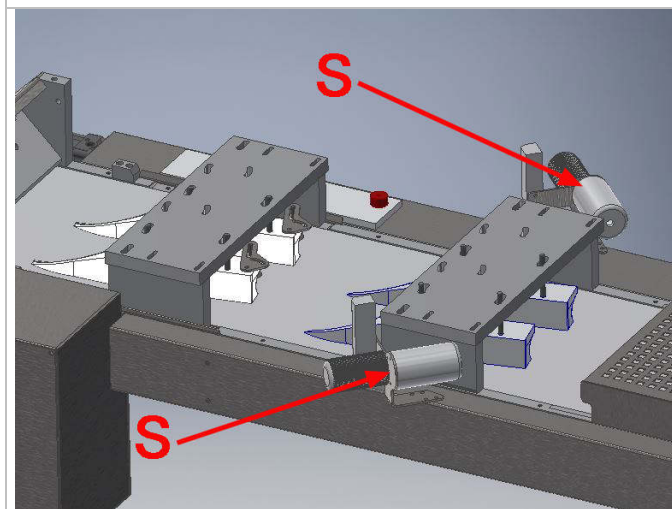
Check that the sheet is overturned correctly by the folding tools [V1, V2].

When the sheet has also passed through the guillotine cutting unit [TC], the filling pump can be started by pressing the "FILLING ON / OFF" button [Q5]. Set the desired dosing speed on the potentiometer [Q6] "FILLING SPEED".



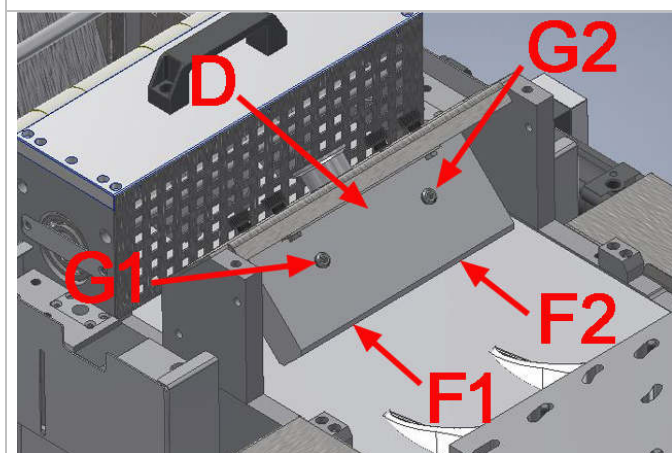


Adjust the potentiometer [Q8] to cut the cannelloni of the desired length with the guillotine cutting unit [TC].




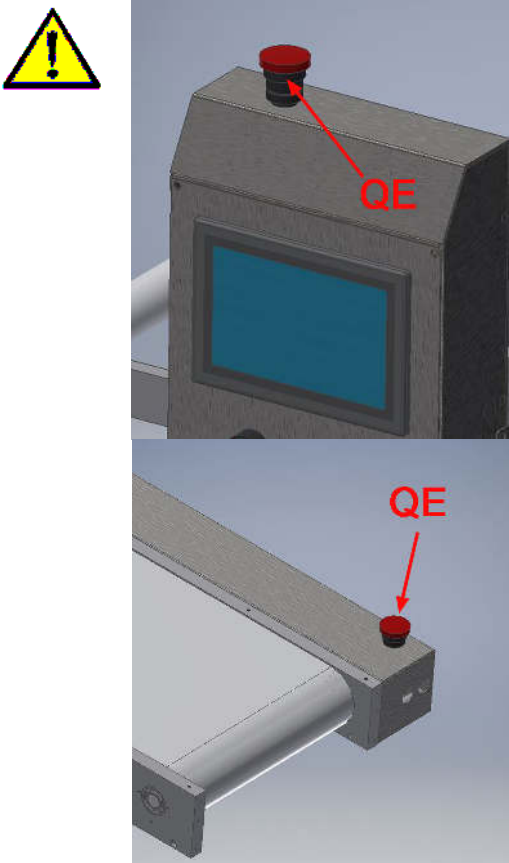
Place the possible sheet scraps (at least 50cm long after the roller) on the two scraps rollers [SC].


Synchronize by acting on the "SCRAPS" knob [Q7], the speed of the scraps rollers [SC] with the speed of sheet scraps coming from the mold: if the rollers [SC] turn too quickly or too slowly tear or do not remove the sheet.



During production It is possible to adjust the amount of filling coming out from the holes [F1,F2] of the doser [D] by acting on the grub screws [G1,G2] by using the supplied tool. Screw or unscrew the grub screws [G2,G1] in order to level the quantity of filling, as explained on page 48.

3.5 - Shutdown

	<p>First of all, turn off the filling pump so as not to dirty the machine, red stop button [Q5] "FILLING PUMP".</p> <p>Only after making sure that there is no more product between the calibrating rollers and the mold, press the red stop button [Q1], "CALIBRATORS", the red stop button [Q2], "BELT".</p> <p>Now you can turn off the machine.</p>
	<p>In case of emergency and / or danger, press the emergency button [QE].</p> <p>To reactivate the machine, turn the emergency button clockwise.</p>

	<p>To turn off the machine, turn the main switch [QG] counterclockwise to "OFF". The green light [QR] switch will now be off. If the machine is to be turned off for a long time and also when cleaning, it is preferable to unplug the machine from the power supply socket.</p>
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4 - CLEAN AND MAINTENANCE

4.1 - Clean operation

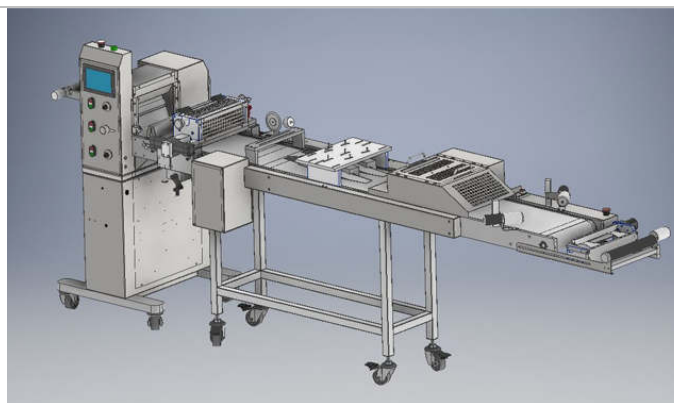
IMPORTANT !

For the correct working of the machine it is necessary to carry out all the cleaning and maintenance operations indicated in the following paragraph.



WARNING !!! Before starting the cleaning operations, disconnect the machine from the power supply!

4.1.1. Overall cleaning operations



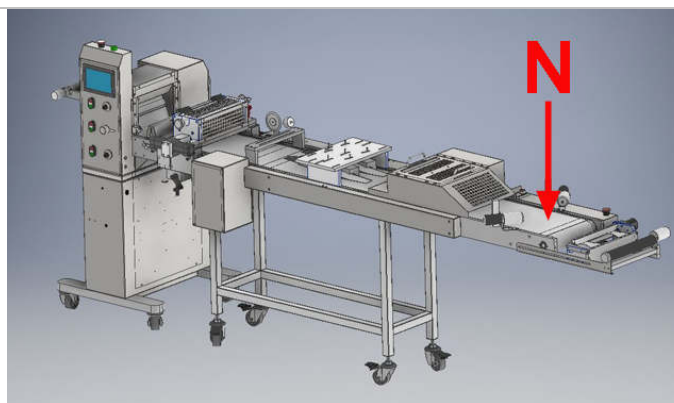
Before starting the cleaning operations, check that the machine is disconnected from the power supply.

Blow all the external parts of the RAV160MS – RAV250MS forming machine with compressed air in order to remove all paste residues.


Clean and sanitize all external parts of the RAV160MS – RAV250MS forming with a suitable non-aggressive detergent and disposable paper.



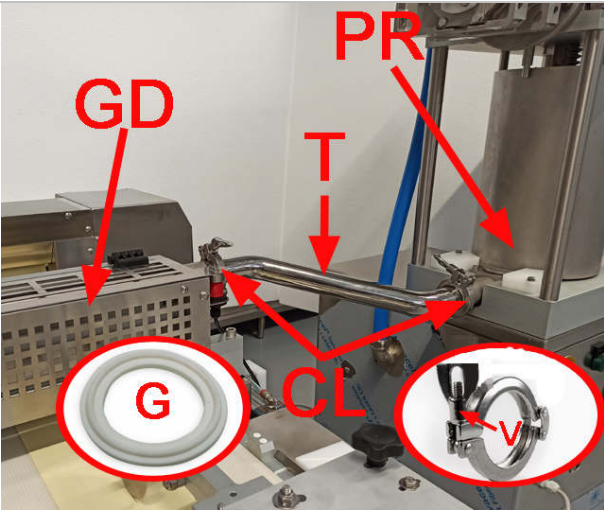
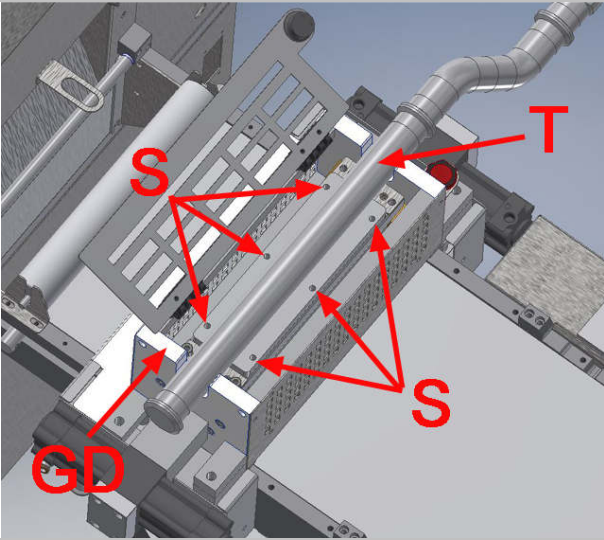
WARNING !!! Do not for any reason use knives, rags or other objects to clean the calibrating rollers! You could seriously damage them!

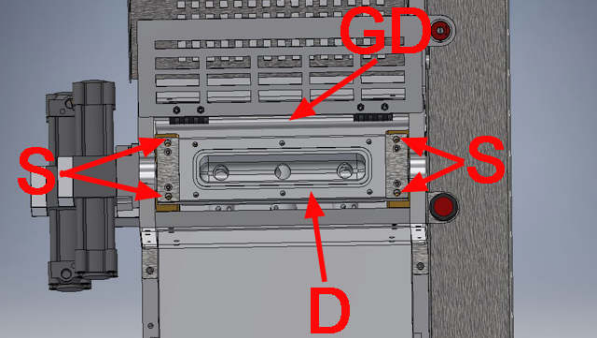
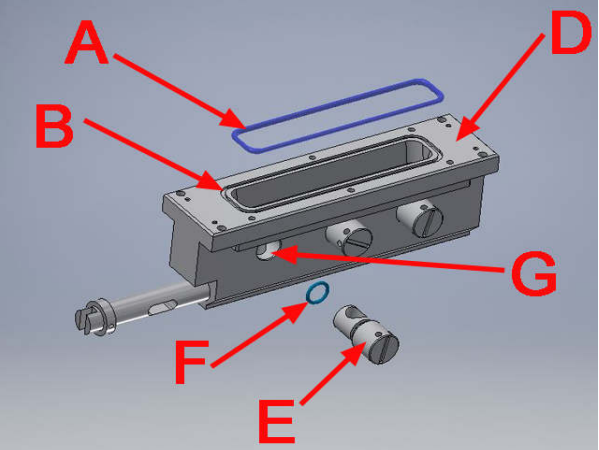
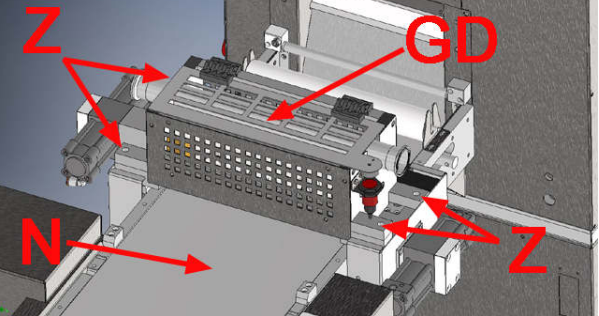
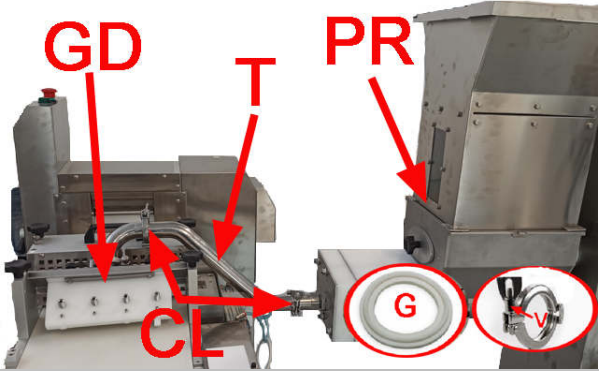


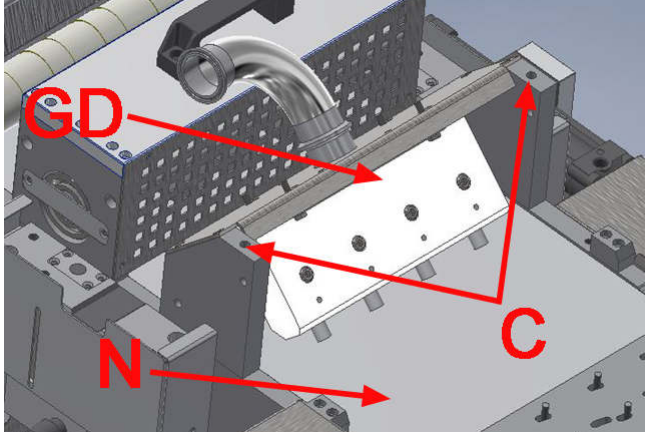
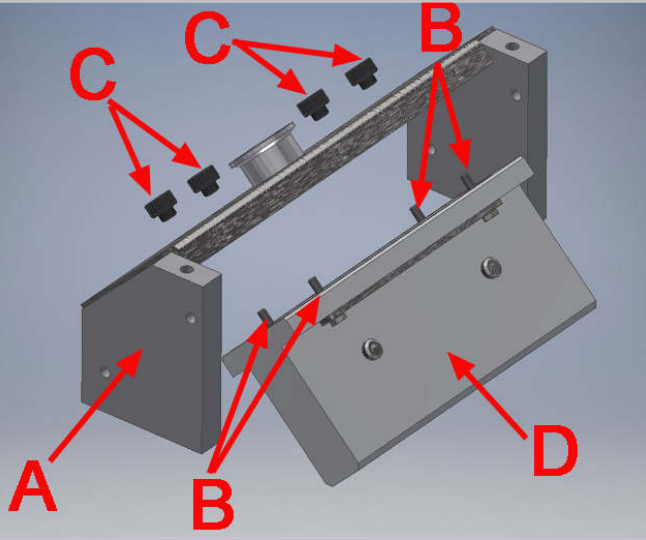
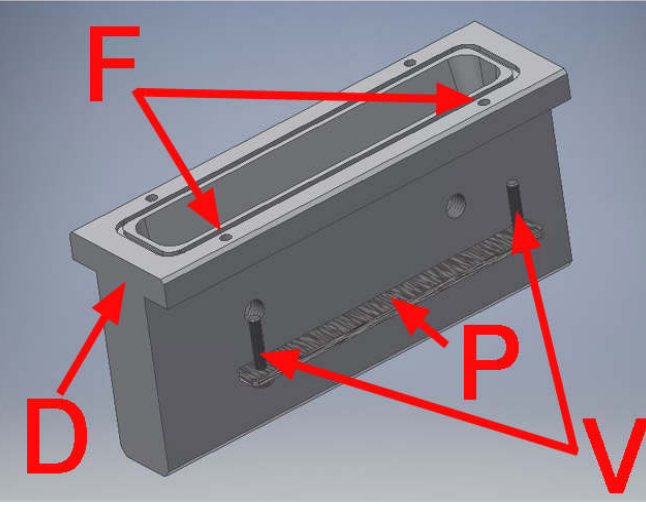
Clean and sanitize the product discharge belt [N] with a suitable non-aggressive detergent and disposable paper.

	<p>Blow the rear compartment [RP] with compressed air in order to remove all paste residues.</p> <p>Clean and sanitize the rear compartment [RP] with a suitable non-aggressive detergent and disposable paper.</p>
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4.1.2. Cleaning operations hand-formed and overturned dosing unit

	<p>Unscrew the two screws [V] and remove the two clamp fittings [CL]. Be careful not to lose the two gaskets [G]. Removes the tube [T] that connects the dosing unit [GD] and the filling pump [PR].</p>
	<p>Unscrew the six screws [S] to remove the tube [T] from the dosing unit [GD].</p>

	<p>Unscrew the four screws [S] and remove the doser [D] from the dosing unit [GD].</p>
	<p>Remove the o-ring [A], the valves [E], the o-rings [F] and the shutter from the dispenser [D].</p>
	<p>Unscrew the four screws [Z] and remove the dosing unit [GD] from the belt [N].</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
<h3>4.1.3. Cleaning operations “plin” and “cannelloni” dosing unit</h3>	
	<p>Unscrew the two screws [V] and remove the two clamp fittings [CL]. Be careful not to lose the two gaskets [G]. Removes the tube [T] that connects the dosing unit [GD] and the filling pump [PR].</p>

	<p>Unscrew the two knobs [C] to remove the dosing unit [GD] from the belt [N].</p>
	<p>Unscrew the four knobs [C] from the four screw threads [B] to remove the doser [D] from the plate [A].</p>
	<p>Remove the screw threads [V] from the holes [F] to remove the plates [P] (one on each side) from the doser [D].</p>

<p>The diagram shows a rectangular metal dispenser component. A red arrow labeled 'S' points to a circular seat on the top edge. Another red arrow labeled 'O' points to an O-ring being lifted from this seat. A third red arrow labeled 'D' points to the main body of the dispenser.</p>	<p>Remove the o-ring [O] from its seat [S] on the dispenser [D].</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
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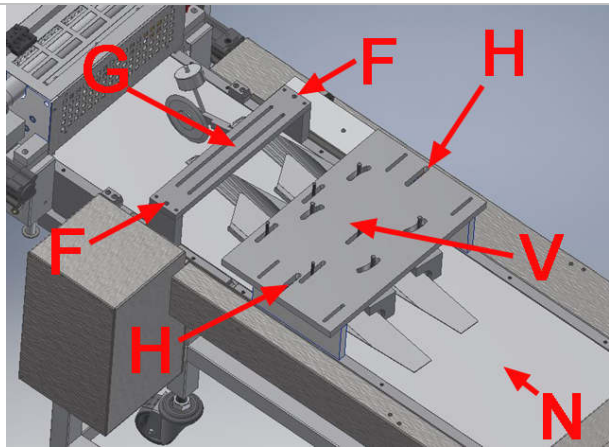
4.1.4. Cleaning operations hand-made production

<p>The diagram shows a complex mechanical assembly. A red arrow labeled 'C' points to a protective cover. Four red arrows labeled 'L' point to knobs located on the top surface of the machine. A red arrow labeled 'N' points to a belt mechanism at the bottom right.</p>	<p>Unscrew the four knobs [L] and remove the protection [C].</p>
---	--

<p>The diagram shows a mold assembly. A red arrow labeled 'ST' points to the mold itself. A red arrow labeled 'N' points to the belt mechanism. Other red arrows labeled 'R', 'I', and 'F' point to various components of the mold assembly.</p>	<p>Remove the mold [ST] from the belt [N] and place it on a flat surface.</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
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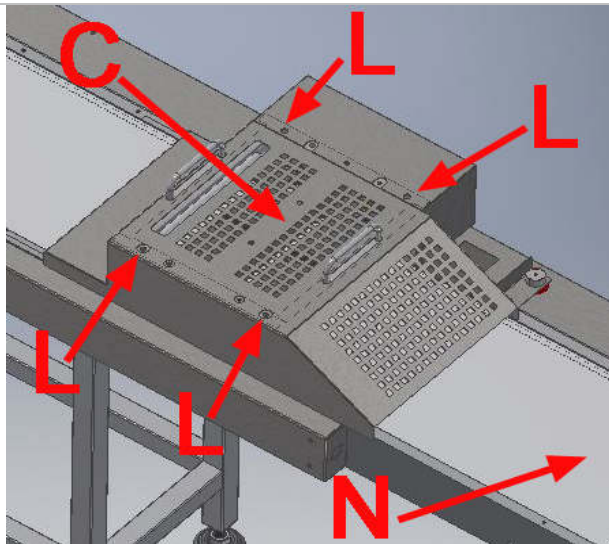
<p>A yellow triangle with a black border and a black exclamation mark inside, indicating a warning.</p>	<p>WARNING !!! Never wash the mold with running water or aggressive chemicals. You could seriously damage it!</p>
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4.1.5. Cleaning operations overturned production

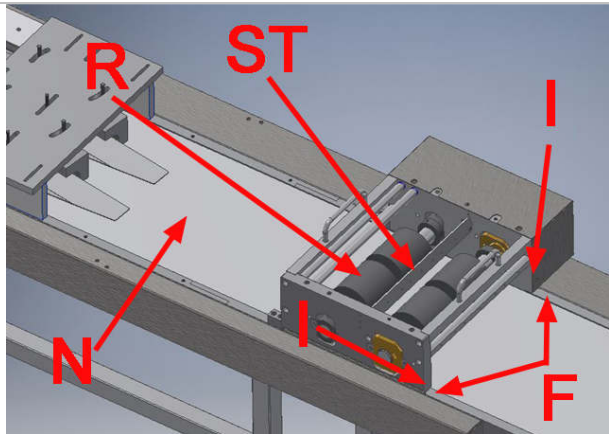


In the case of the overturned production, remove the cutting unit [G] from the belt [N], unscrewing the two knobs [F], and the folding tools [V], unscrewing the two knobs [H].

Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.



Unscrew the four knobs [L] and remove the protection [C].



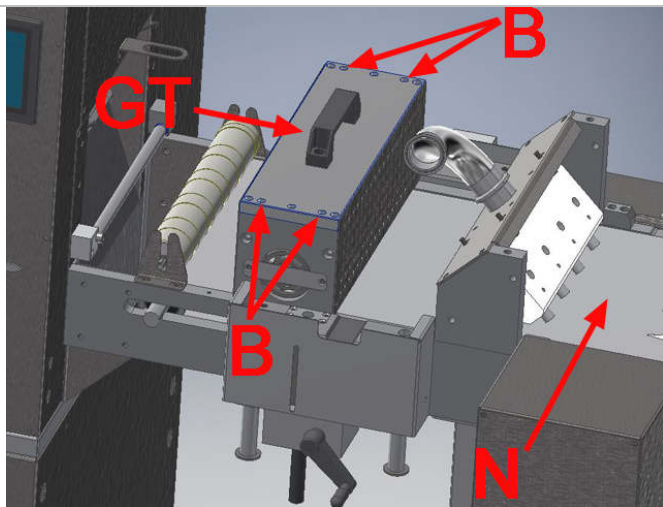
Remove the mold [ST] from the belt [N] and place it on a flat surface.

Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.



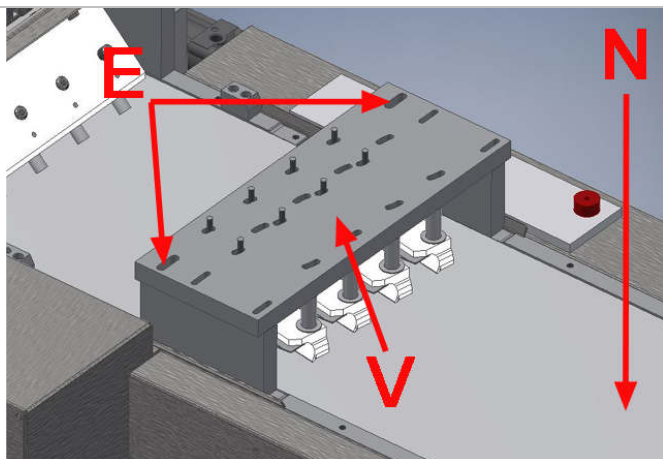
WARNING !!! Never wash the mold with running water or aggressive chemicals. You could seriously damage it!

4.1.6. Cleaning operations “plin” production



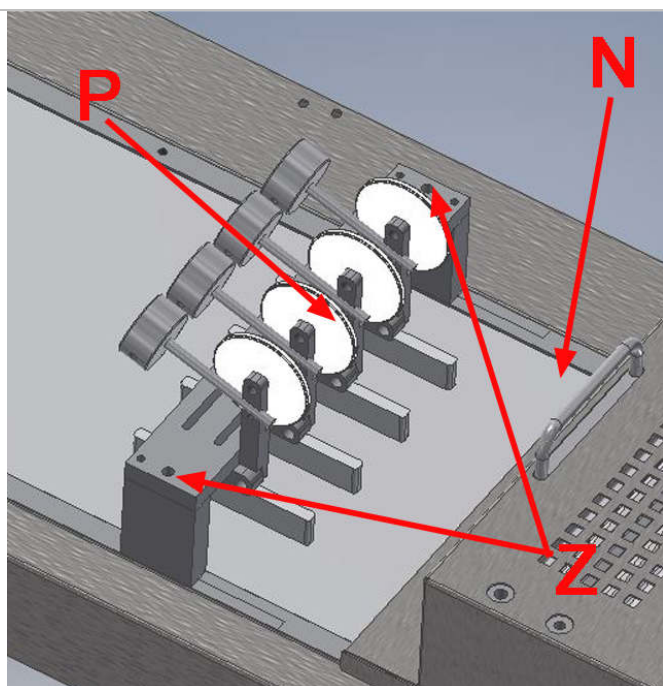
Remove the cutting unit [GT] from the belt [N] by unscrewing the four knobs [B].

Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.



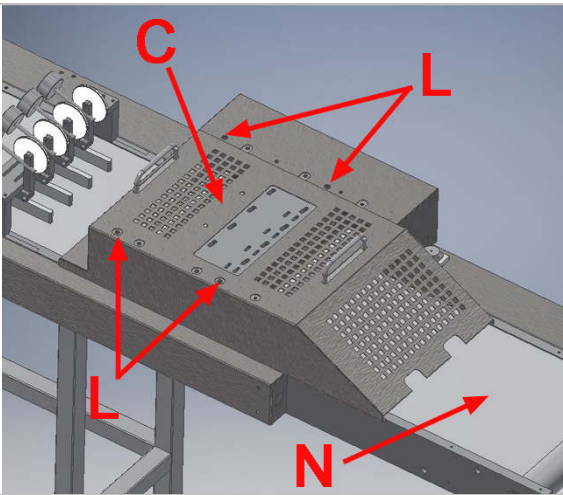
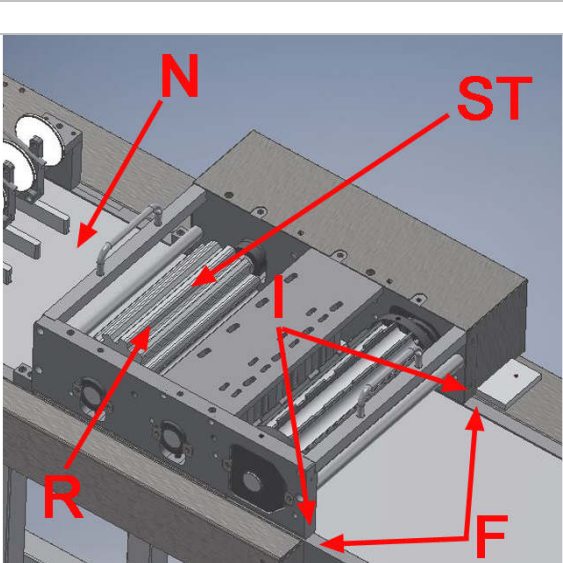

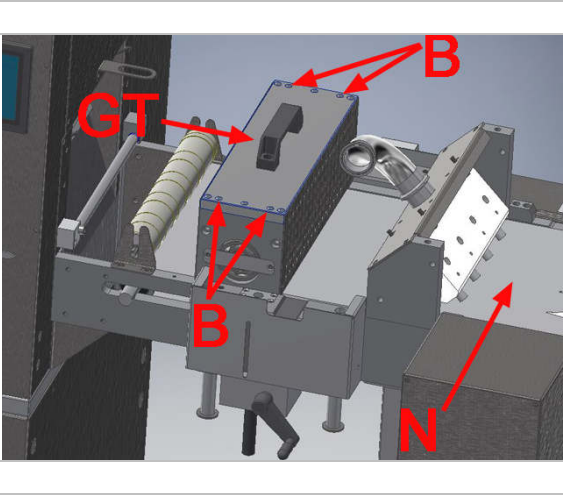
Remove the folding tools [V] from the belt [N] by unscrewing the two knobs [E].

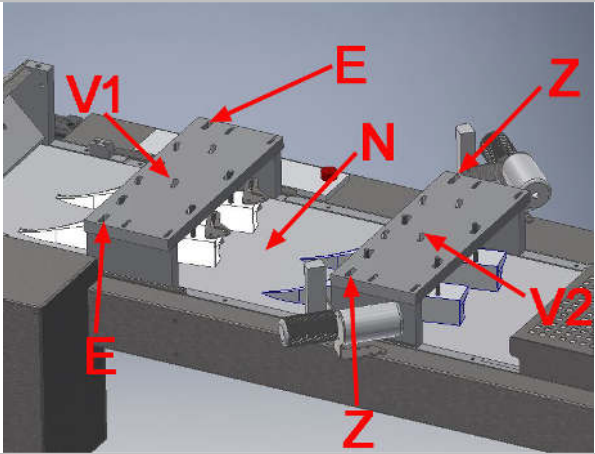
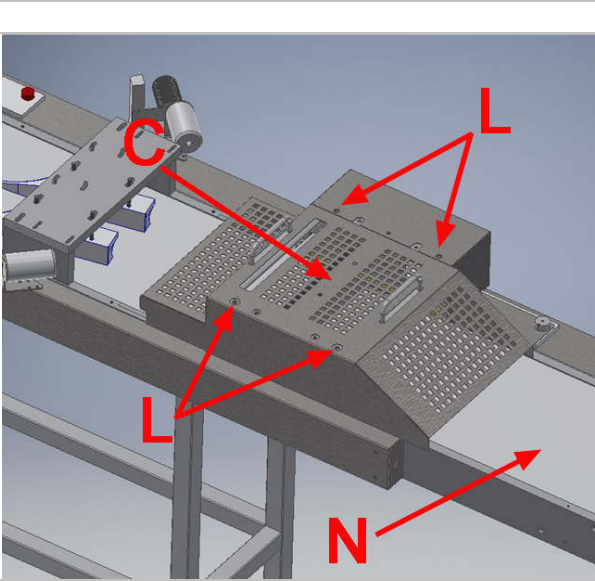
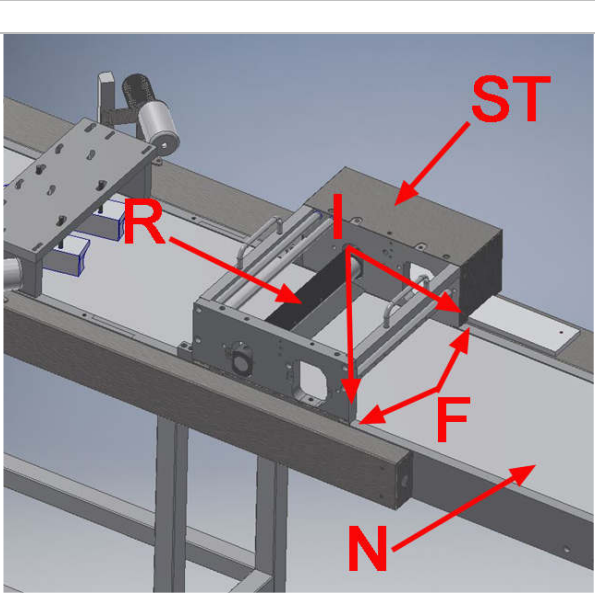

Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.


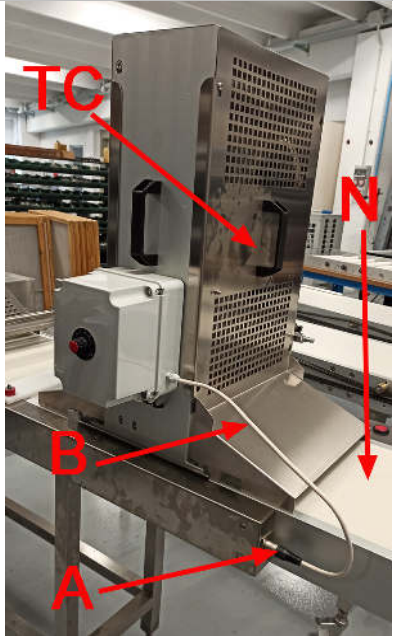
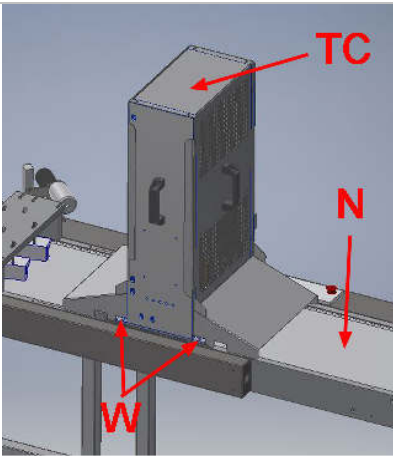



Remove the pressure discs [P] from the belt [N] by unscrewing the two knobs [Z].

Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.

	<p>Unscrew the four knobs [L] and remove the protection [C].</p>
	<p>Remove the mold [ST] from the belt [N] and place it on a flat surface.</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
	<p>WARNING !!! Never wash the mold with running water or aggressive chemicals. You could seriously damage it!</p>
<p>4.1.7. Cleaning operations “cannelloni” production</p>	
	<p>Remove the cutting unit [GT] from the belt [N] by unscrewing the four knobs [B].</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>

	<p>Remove the folding tools [V1 and V2] from the belt [N] by unscrewing the two knobs [E] and the two knobs [Z].</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
	<p>Unscrew the four knobs [L] and remove the protection [C].</p>
	<p>Remove the mold [ST] from the belt [N] and place it on a flat surface.</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
	<p>WARNING !!! Never wash the mold with running water or aggressive chemicals. You could seriously damage it!</p>

	<p>Disconnect the compressed air system of the plant from the compressed air supply [A] of the guillotine cutting unit [TC].</p>
	<p>Disconnect the cable [B] from the socket [A] of the guillotine cutting unit [TC] on the left side of the belt [N].</p>
	<p>Remove the guillotine cutting unit [TC] from the belt [N] by unscrewing the four screws [W] two on each side.</p> <p>Clean and sanitize all the components that have just been disassembled with a suitable non-aggressive detergent and disposable paper.</p>
	<p>WARNING !!! Handle the guillotine cutting system [TC] in two people being very careful because it is very heavy!</p>

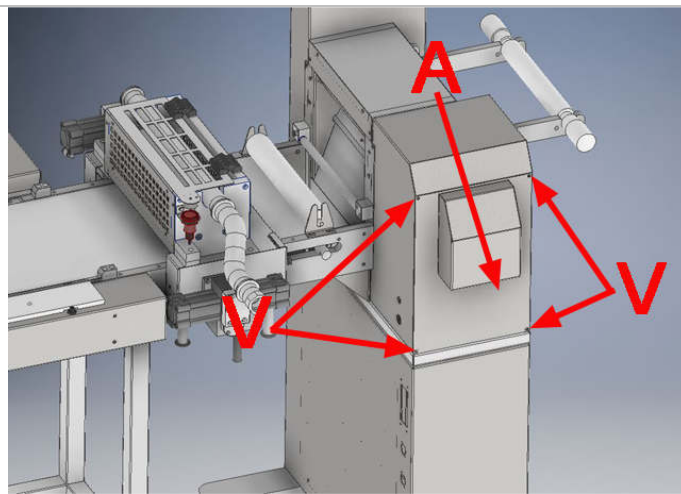
4.2 - Maintenance



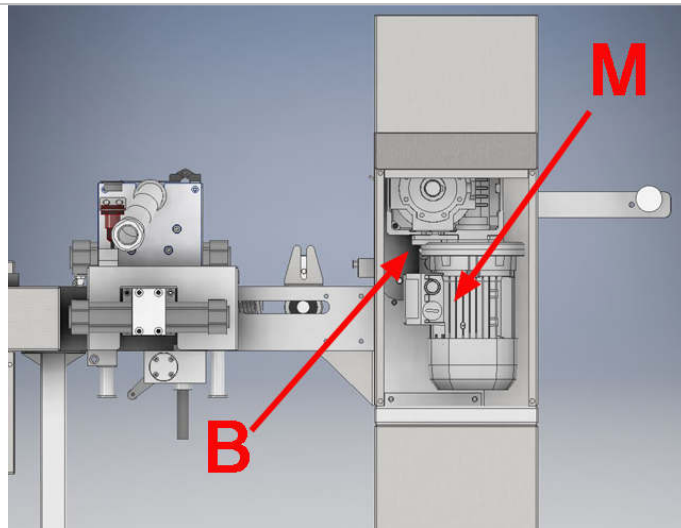
WARNING !!! Before starting the cleaning operations, disconnect the machine from the power supply!

IMPORTANT !

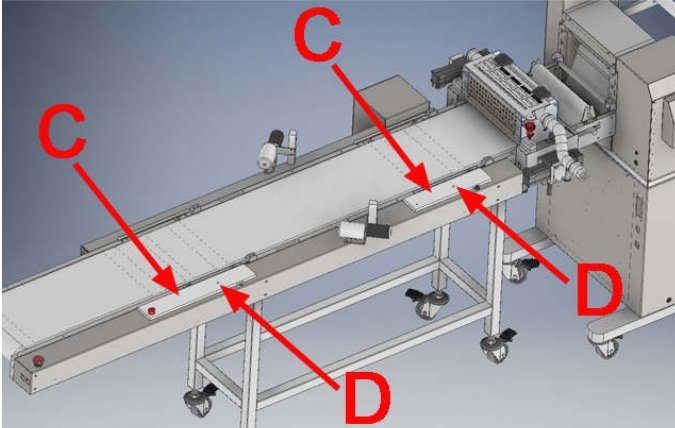
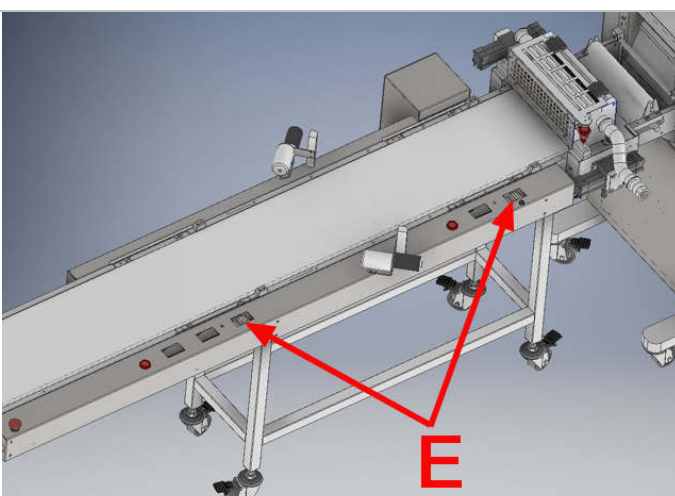
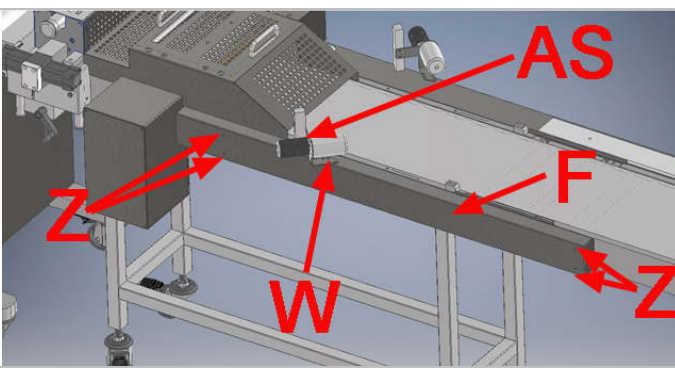
Even minimal damage of rollers caused by shock or other compromise the good working of the machine!

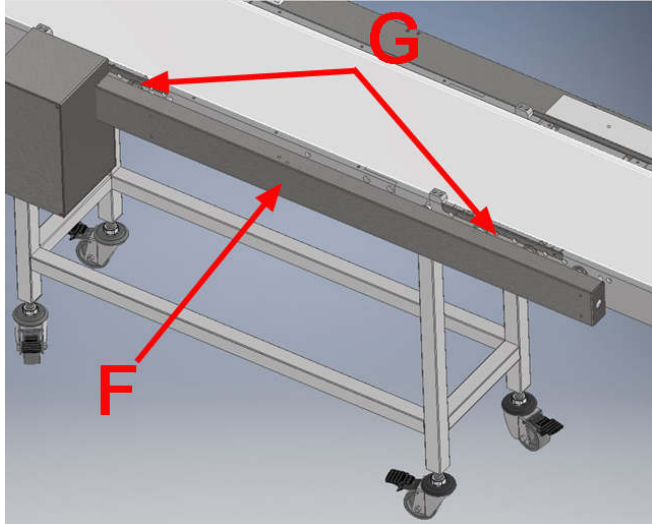

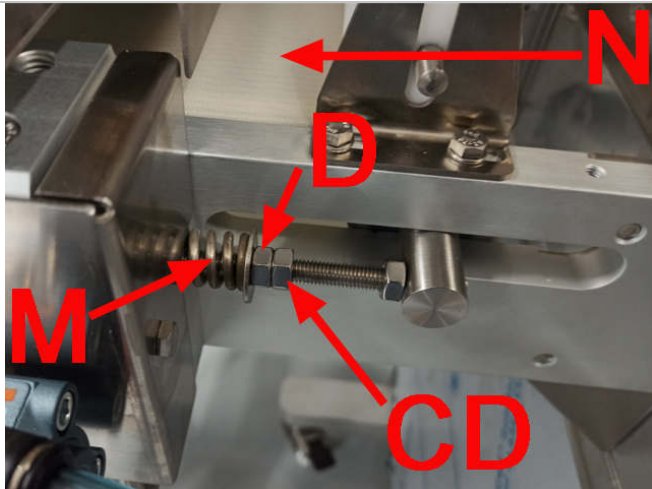



Unscrew the four screws [V] and remove the motor side panel [A].



Once a year or whenever it is necessary to lubricate the gears [B] located behind the engine [M]. Use gear grease.

 <p>The diagram shows a side view of the forming machine's frame. Two red arrows labeled 'C' point to the belt gear covers on the left side. Two red arrows labeled 'D' point to the knobs on the right side of the frame.</p>	<p>Unscrew the two knobs [D] and remove the two belt gear covers [C].</p>
 <p>The diagram shows a side view of the forming machine's frame. A red arrow labeled 'E' points to the lubrication points on the gears and chains.</p>	<p>Once a year or whenever it is necessary to lubricate the gears [E] and the chains connected to them. Use gear grease.</p>
 <p>The diagram shows a side view of the forming machine's frame. A red arrow labeled 'AS' points to the scrap roller. A red arrow labeled 'F' points to the belt side panel. Two red arrows labeled 'Z' point to the screws on the side panel. A red arrow labeled 'W' points to the screws on the frame.</p>	<p>Unscrew the four screws [W] and remove the scrap roller [AS]. Unscrew the four screws [Z] and move the belt side panel [F] slightly to create a chink.</p>

	<p>Once a year or whenever it is necessary to lubricate the gears [G] and the chains connected to them, supporting the belt side panel [F] as shown in the figure. Use gear grease.</p>
	<p>WARNING !!! It is very dangerous to touch or lubricate the gears while they are in motion. This operation can damage the machine or injure the operator. Lubricate only when the machine is not moving and not electrically powered.</p>
	<p>Check that the belt [N] is always taut. If it is loose, unscrew the lock nut [CD] and screw the nut [D] to compress the spring [M] which tension the belt [N]. Retighten the lock nut [CD].</p> <p>This must be done on both sides of the belt [N]. Be careful to tension the belt [N] equally on both sides and check that the distance between the nut [D] and the roller shaft is the same.</p>
	<p>Grease the guillotine cutting unit once a month through the [I] greaser by screwing them. From time to time the grease is consumed, so they will move closer and closer to the side of the machine: once they reach the bottom, they must be unscrewed and filled with the lithium grease supplied, and screwed back in just one turn.</p>

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