Z26

zummo

Technical Manual

011345-02

Change history

Edition	Date	Description
Rev.01	September	First edition of the manual
Rev.02	May 2025	Second edition of the manual

1 Technical

RUNNING TIME		15
WASTE BOX CAPACITY		79
DIMENSIONS	**HEIGHT (mm)**	171
	WIDTH (mm)	80
	DEPTH (mm)	80
ENVIRONMENTAL	**TEMPERATURE BETWEEN**	+5ºC and +45ºC
ENVIRONMENTAL	**HUMIDITY BETWEEN**	45% and 70%
FRUIT SIZE Ø (mm) (*)	**CALIBRE KIT 5-6 SLICES, STICKS, CHUNKS OR BLOCKS**	Ø between 135 and 155
	CALIBRE KIT 7-8 SLICES, STICKS, CHUNKS OR BLOCKS	Ø between 110 and 135
	CALIBRE KIT 9-10 SLICES, STICKS, CHUNKS OR BLOCKS (fruit with leaves)	Ø between 100 and 110
	KIT CALIBRE 9-10 SLICES, STICKS, CHUNKS OR BLOCKS (fruit without leaves) **	Ø minimum 110
MINIMUM FRUIT HEIGHT (mm)		125
MAXIMUM FRUIT HEIGHT (mm)		N/A
WEIGHT (without packaging)		200
A-weighted sound pressure level		Less than 70 dB
VOLTAGE AND FREQUENCY	**MOD. Z26A**	230V-50Hz
	MOD. Z26B	220V-60Hz
	MOD. Z26C	110V-60Hz
MAXIMUM POWER		1.6 kW
SAFETY	Door with safety switch. Multiple safety sensors	

** The standard machine includes 1 kit to be chosen by the customer.*

*** The crownless fruit kit must be used (not included as standard).*

Technical

For any technical or maintenance queries, please contact your usual distributor or contact Zummo via:

Email:customerservice@zummo.es Telephone: 961 301 246
Fax: 961 301 250

Website: zummocorp.com

Any repairs carried out during the warranty period that are not authorised by Zummo will automatically void the warranty.

Influence of the Brix degree on pineapple cutting

What is the Brix degree of a pineapple?

The Brix degree indicates the percentage of soluble sugars present in pineapple juice.

1 Brix degree is equivalent to 1 gram of sugar in 100 grams of liquid solution.

A good Brix degree for a pineapple is between 12° and 16°, indicating that it is ripe, juicy and sweet.

How does it affect cutting pineapple?

1. Softer texture with higher Brix:

- A sweeter pineapple is riper and juicier.
- The flesh is softer, therefore easier to cut, but more delicate.

2. More juice when cut:

- Pineapples with a high Brix release more juice, which can make cutting difficult if a sharp knife is not used.

3. Less noticeable fibre:

- The cut is cleaner and the bite more pleasant thanks to the soft fibres.

4. Preservation:

- The sweetest pineapples last less time after being cut due to their high sugar and moisture content.

Summary:

Influence of Brix Degree on Pineapple Cutting

- Higher Brix = sweeter, softer, juicier and more delicate when cut.
- Lower Brix = firmer, easier to store, but less flavourful.

Higher Brix	Lower Brix
Sweeter and juicier	Less sweet and drier
Softer, more delicate flesh	Firmer flesh
More difficult to preserve	Longer shelf life after cutting
More juice when cut	Less juice when cut
Less noticeable fibre	Higher fibre content

2 Tools required

a. General repairs

Description	Photo
Complete socket wrench set, including Allen, Torx and Philips bits.	
Precision flat screwdriver 2.0	
Set of fixed wrenches, from 7 to 22	

b. Compressor maintenance

Description	Photo
Torque wrench (min. 20 Nm)	
Metric fixed wrench 17	

22 mm metric open-end wrench	
Socket wrench set including screwdriver bits and Allen keys **IMPORTANT PH3 BIT**	  

3 Reception and installation

SST

NOTE: When unpacking and installing the machine, wear suitable gloves and use a suitable cutter

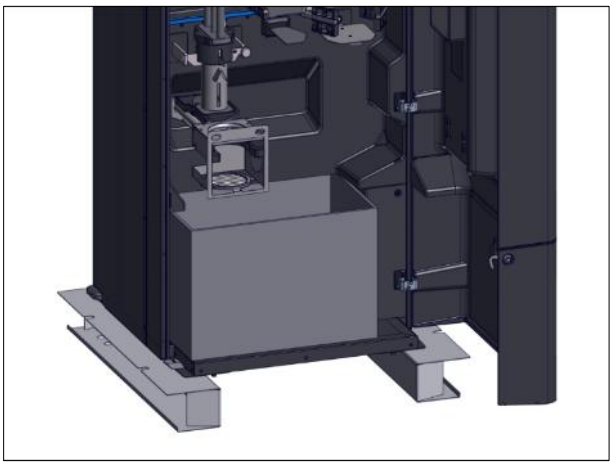
a. Machine's reception

The set will be shipped in 1 box described below:

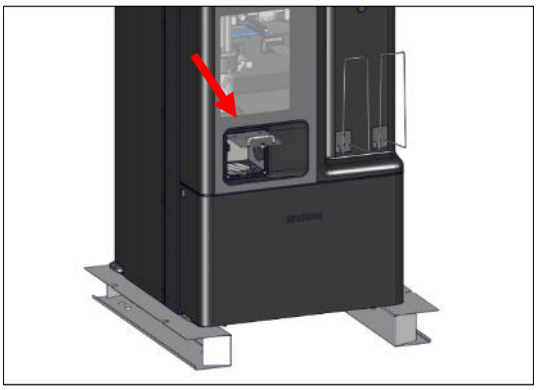
- Complete machine with the cutting kit already installed. The instruction manual is included with the machine.

b. Installation and configuration

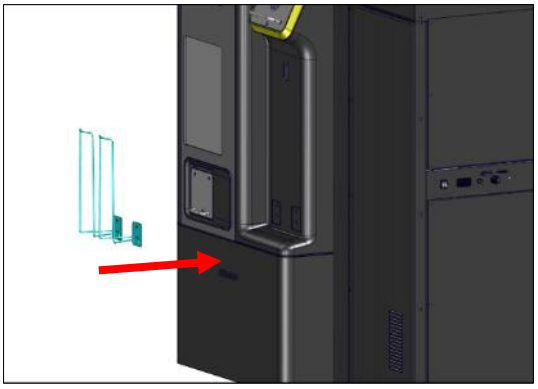
- The machine comes mounted on metal bases that must be removed to install the wheels. These are located inside the waste bin along with the safety gloves and the **power cable**.

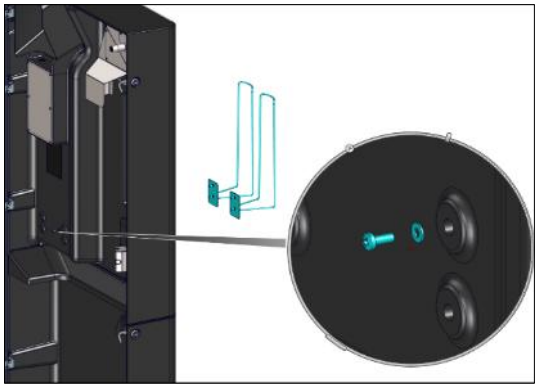


- Inside the front door of the bin, there is a bag with a pair of keys to open the central door and screws for the wheels.

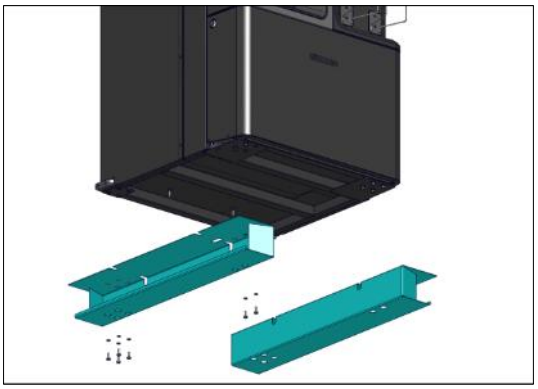


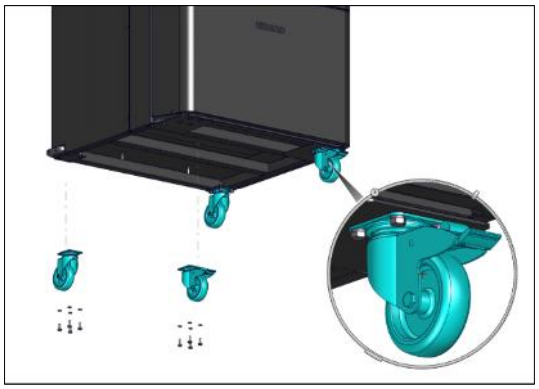
- Screw the bin holder and lids to the front of the door using the screws provided. These will be inside the waste bin (if you have requested an extra cutting kit, it will be inside the bin).





- With the help of a pallet truck, lift the machine a few centimetres until there is enough space to remove the metal bases and install the wheels. Fit the wheels with brakes at the front.

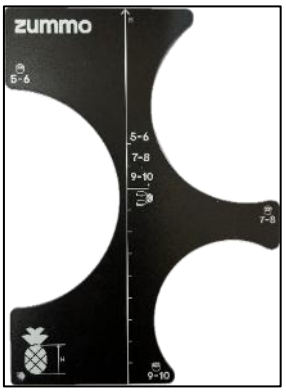


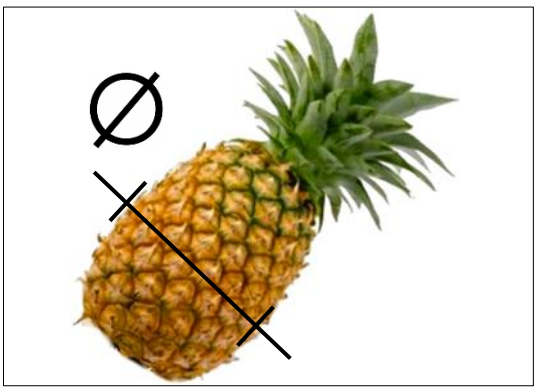


- Position the machine leaving enough space to open the door and allow easy access to the on/off switch.

- Check that the blade kit and pusher installed on the machine are suitable for the pineapples you will be working with, checking their diameter. **DO NOT JUST CHECK THE SIZE INDICATED ON THE PINEAPPLE LABEL.**
  We recommend using the gauge supplied with the machine to ensure the blades are correctly configured.

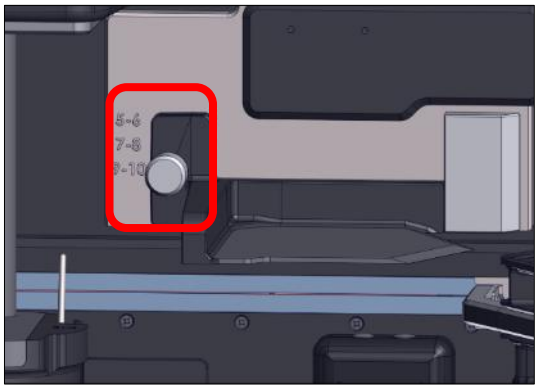
  Setting up the machine correctly will ensure that it works properly.

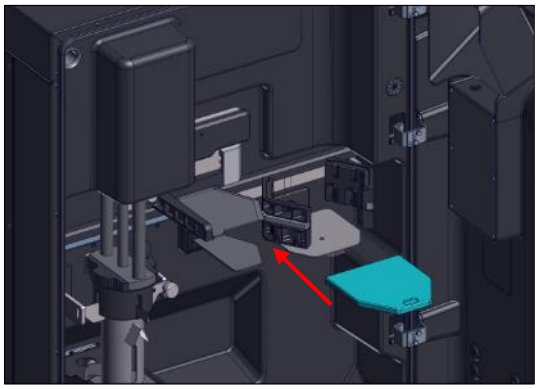




- Adjust the height of the ridge cutting blade, positioning it at the correct height to optimise pineapple cutting. If necessary, install the blade supplement to increase the cutting distance by 0.5 cm.

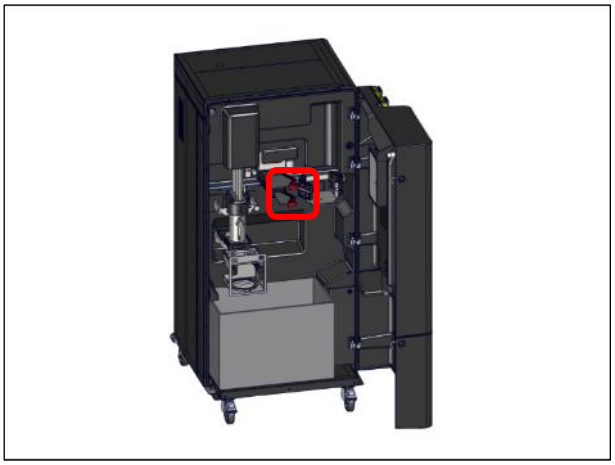
IMPORTANT: follow the criteria in the table below.

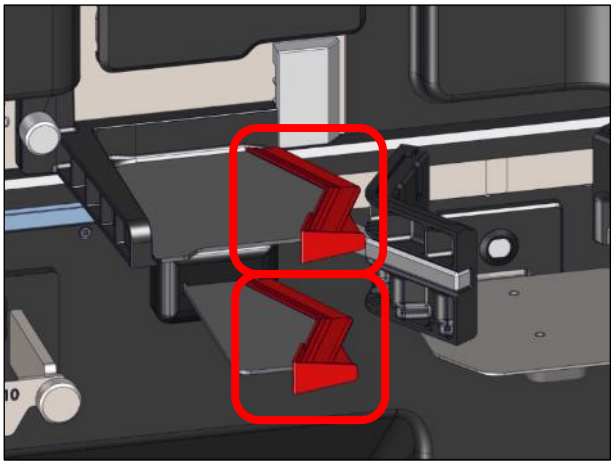


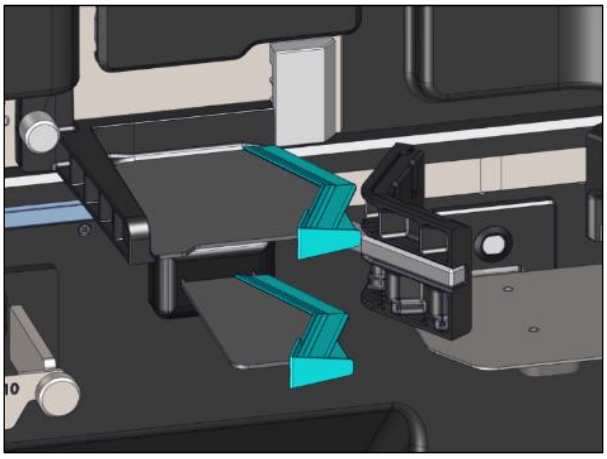
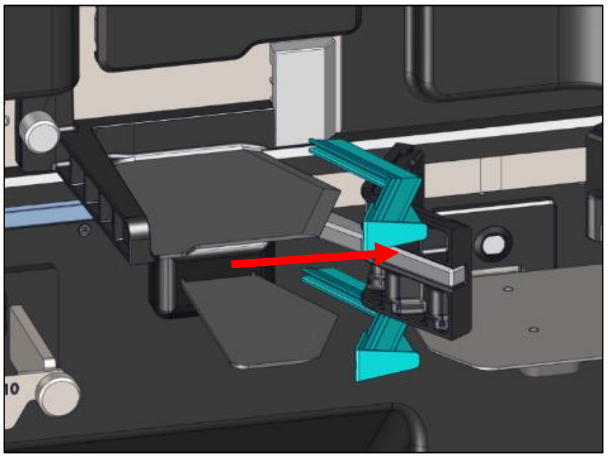


Fruit size	Optimal fruit height	It is advisable to fit the pineapple supplement when the fruit height is
SIZE 5-6 (Ø FROM 135 mm)	From 165 mm	Between 155 and 165 mm
SIZE 7-8 (Ø between 110 and 135 mm)	From 150 mm	Between 140 and 150 mm
CALIBRE 9-10 (Ø up to 110 mm)	From 135 mm	Between 125 and 135 mm

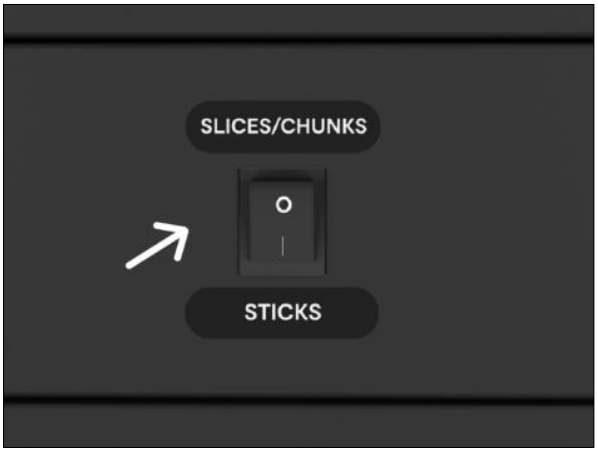
- Remove the blade guards.

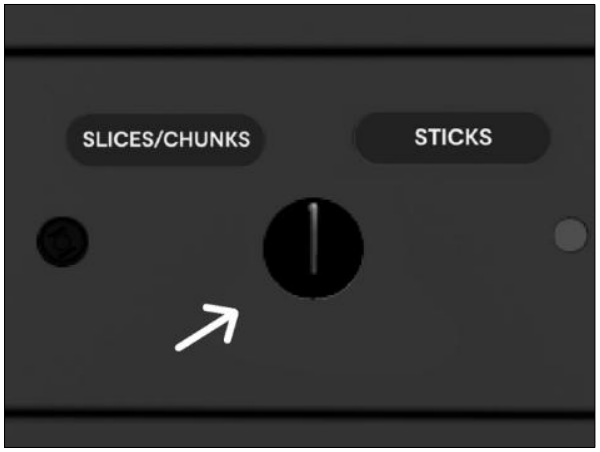




- Set the cutting selector to the correct position. *depending on version*.

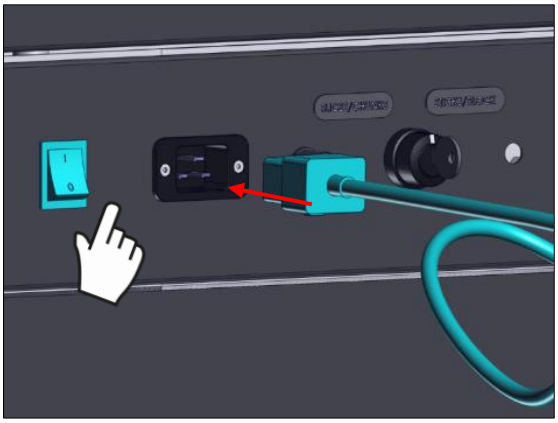




IMPORTANT: DO NOT set it to the correct cutting mode, as this will cause the machine to malfunction.

- Connect the power cable, turn on the machine using the switch and wait for the symbol indicating that the canister needs to be inserted to flash, indicating that the machine is ready for use.

NOTE: on the 110V model, it may take several minutes for the air compressor to start up the first time.




- Process a pineapple and check that the cut fruit falls correctly into the container (**point 10.c.**).

4 Cleaning protocol: including disassembly and assembly of all removable parts

SST	NOTE: Wear gloves when handling the blade without protection.	

a. Precautions before cleaning

- It is advisable to switch off the machine at the switch and disconnect it from the mains before starting cleaning operations.
- Do not wash the machine with direct jets of water and/or high pressure.
- The parts in the cutting and processing area must be cleaned at least once a day, following the cleaning instructions.
- Safety gloves must be always worn during cleaning.

b. Steps to follow for cleaning

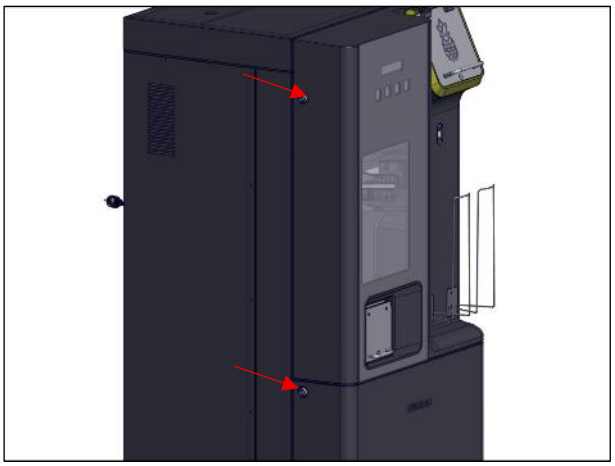
https://youtu.be/pDd0qdTycOU?si=ySvWpQK3ryMZWwVi

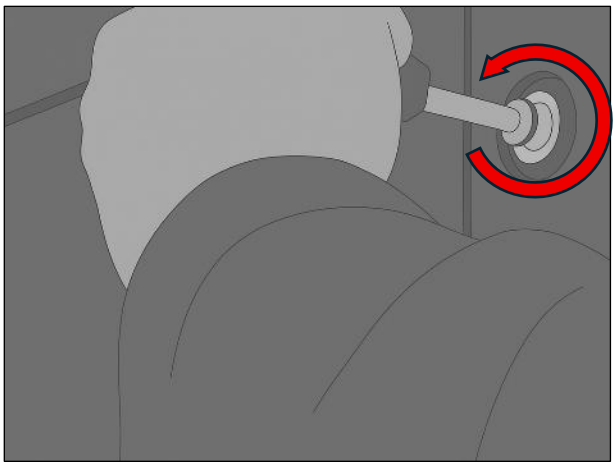
IMPORTANT: it is advisable to disconnect the machine from the mains.

- The cutting and processing area must be cleaned daily.
- The use of cleaning products containing chlorine is not permitted.
- Do not deviate from the procedure prescribed by Zummo.

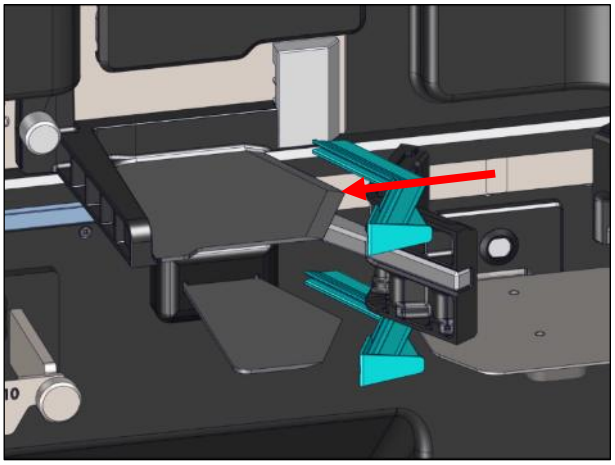
CATEGORY	ACTION
Cleaning of all loose parts.	Dishwasher at a maximum temperature of 70ºC or clean by hand.
Clean the machine, including the front and door.	Damp cloth dipped in a neutral soap solution. **ATTENTION!** NEVER clean with products that could scratch or damage it.
Disinfect after cleaning.	Use a food-safe disinfectant (e.g. hydrogen peroxide-based, in a concentration of 3-6%).
Visual inspection.	Check that all parts are intact.

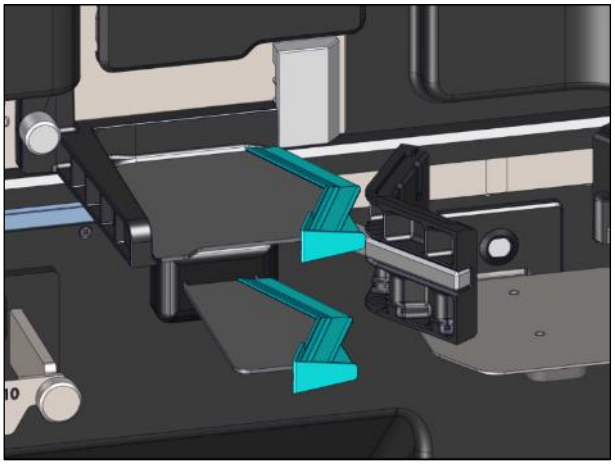
1. Once the machine has been switched off, disconnect it from the mains. Open the front door using the locks.





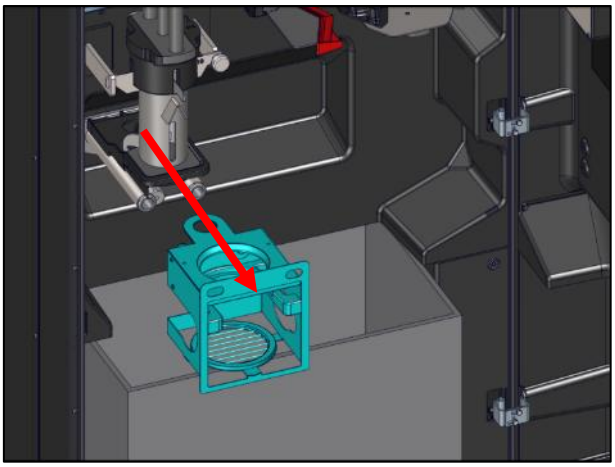
2. Put the blade guards in place to prevent cuts.



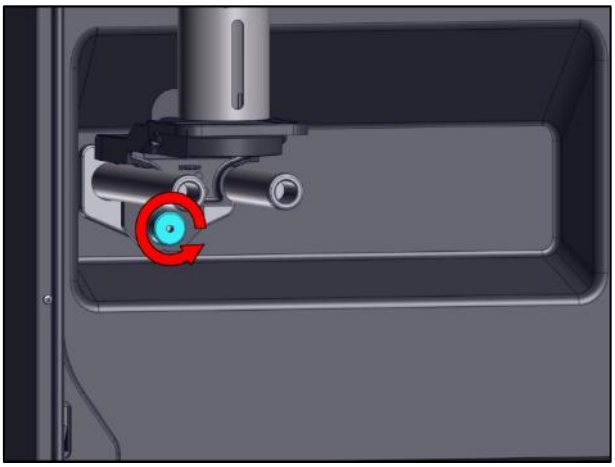
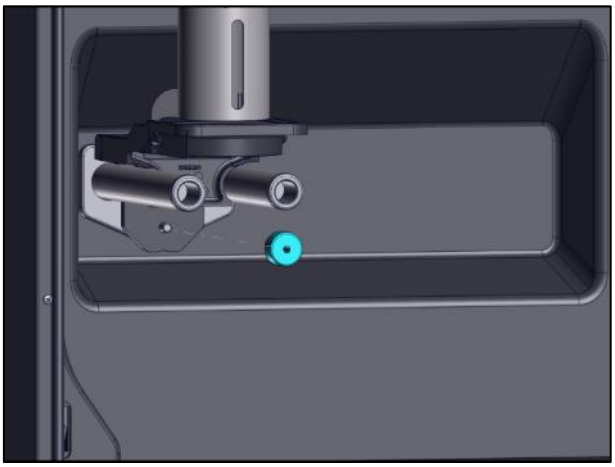
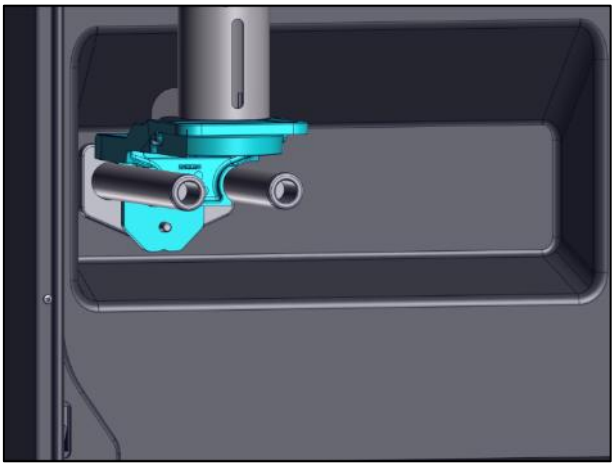
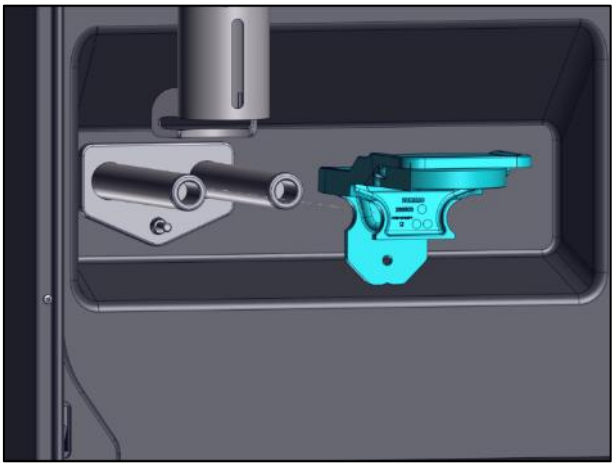


3. Close the waste bag and remove it so that the parts removed from the machine can be placed in the waste drawer.

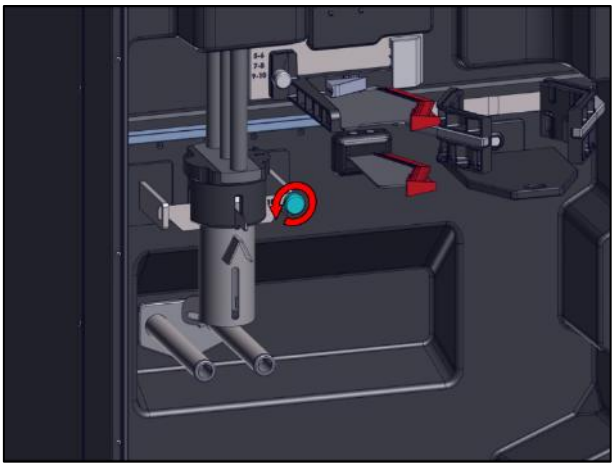
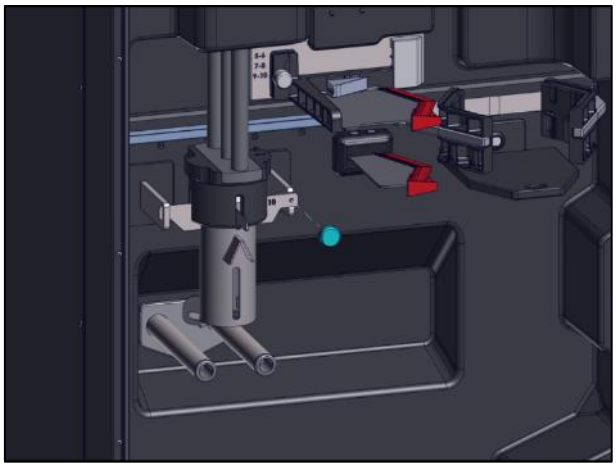
4. Remove the metal drawer by pulling it forward.



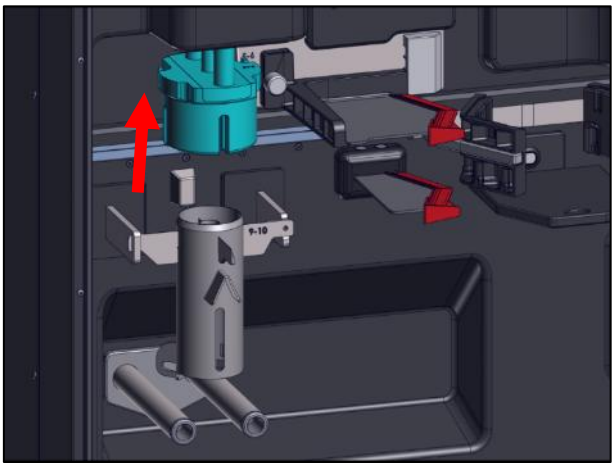
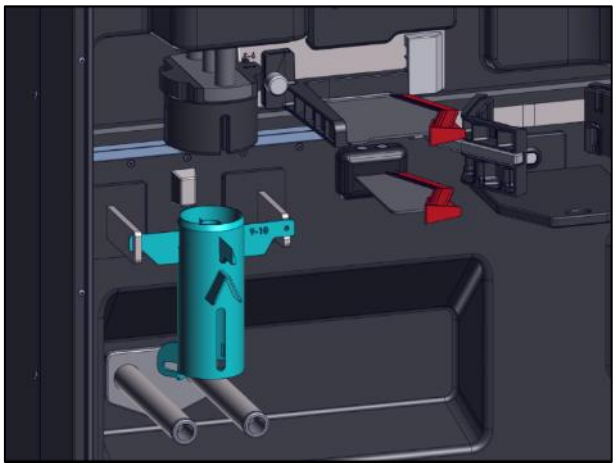
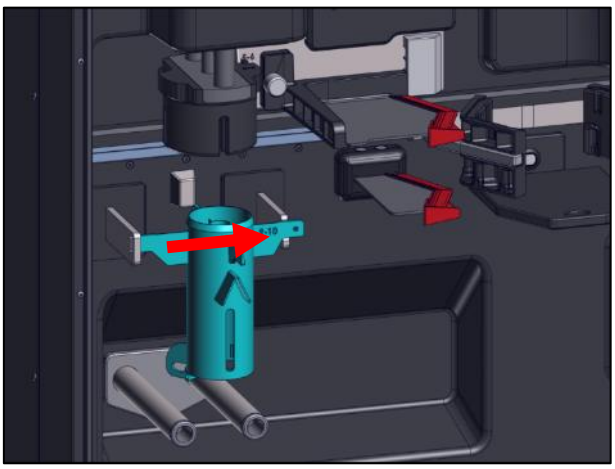
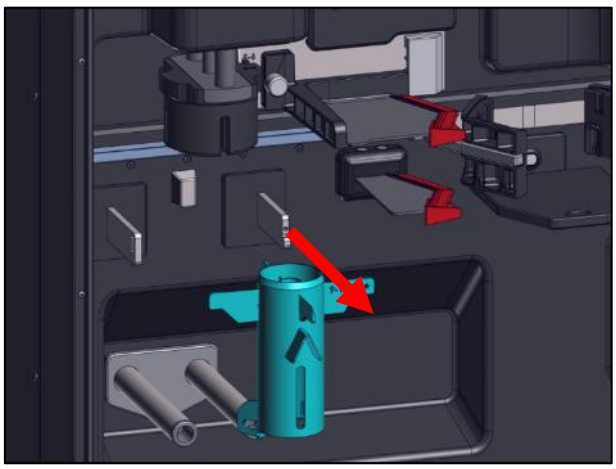
5. Loosen and remove the nut from the slicing blade or stick/block slide. It is advisable to leave the nut in place to prevent it from getting lost.

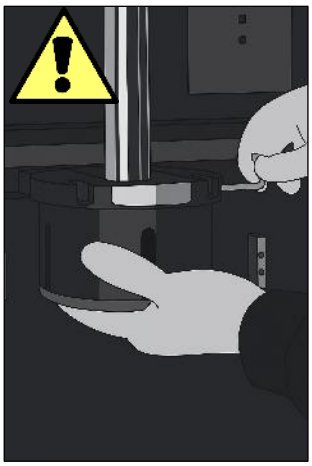
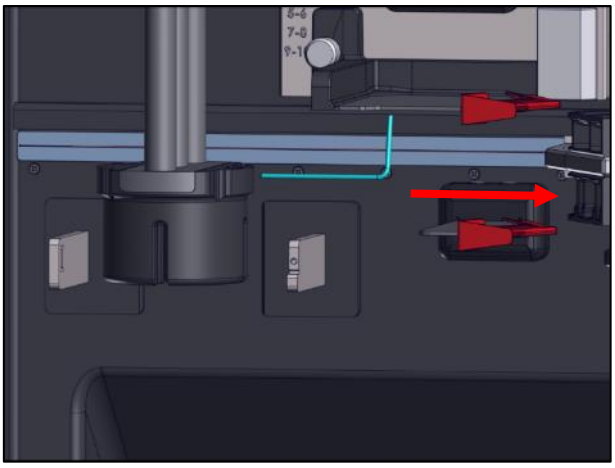
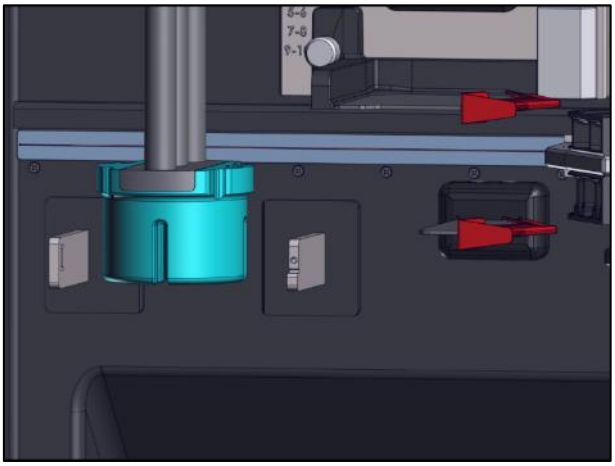
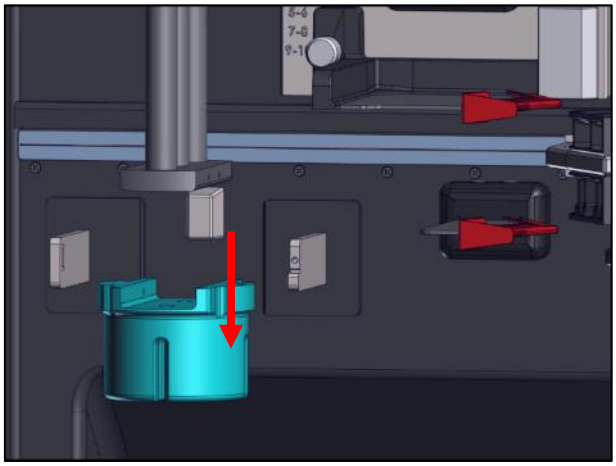
6. Loosen and remove the blade nut. We recommend leaving the nut in place to prevent it from getting lost.

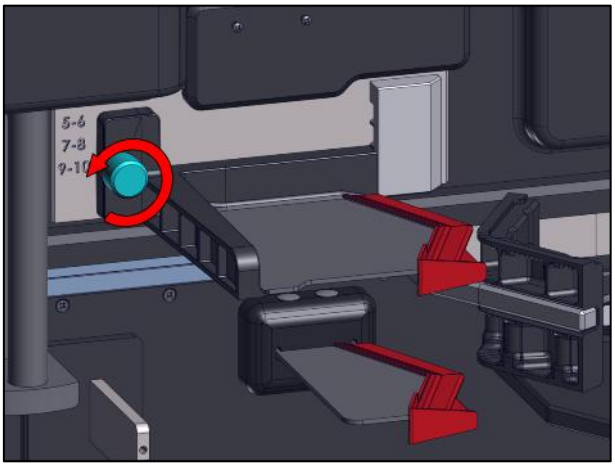
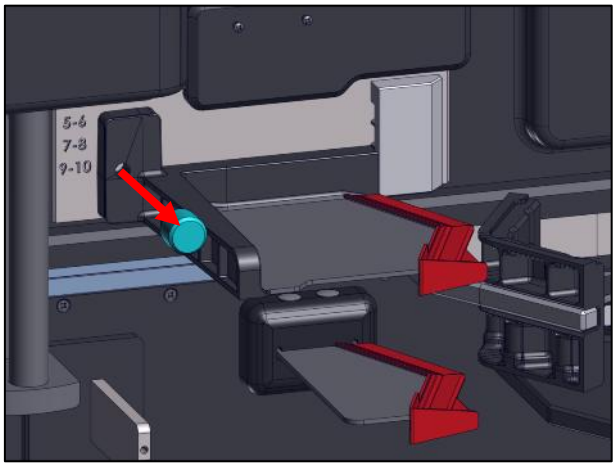
7. Lift the pusher and remove the cylindrical blade. We recommend leaving the nut in place to prevent it from getting lost. Take special care not to drop the pusher.

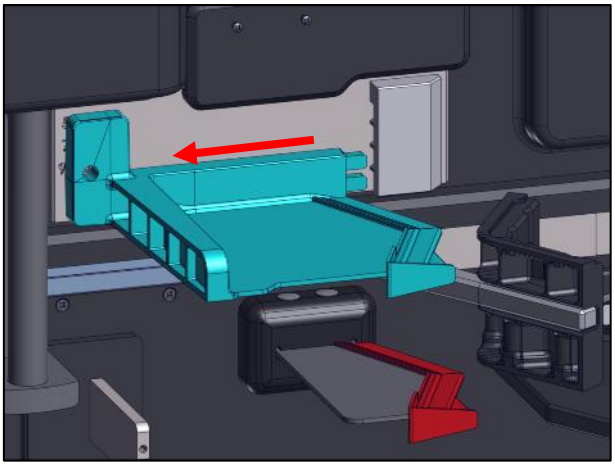





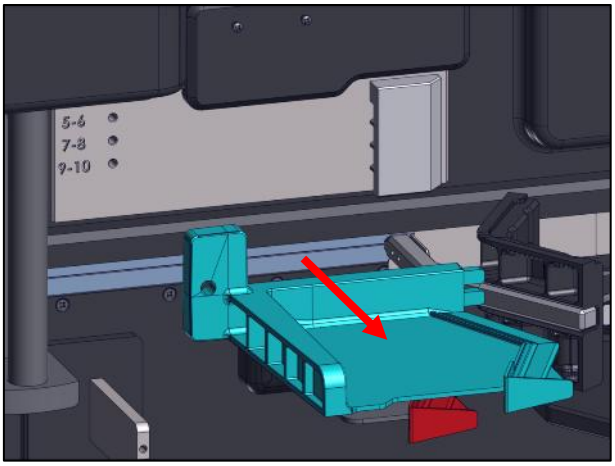
8. Hold the black peeler firmly with your hand while turning the pin and removing the pin and peeler. It is advisable to leave the pin in position to prevent loss.

9. Loosen and remove the knob from the blade that cuts the top of the pineapple and remove the blade as well. It is advisable to leave the knob in place to avoid losing it and to remember the setting of the blade.

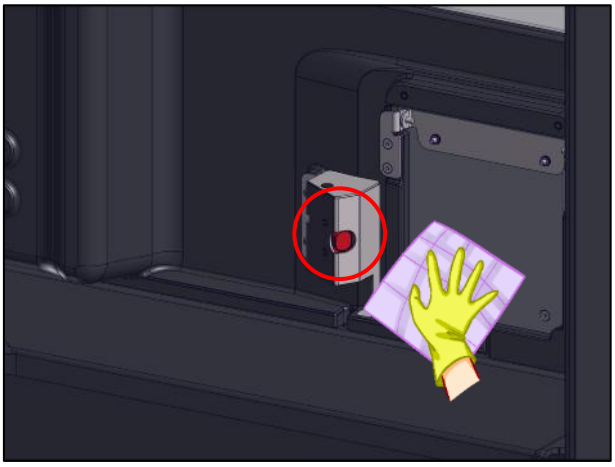





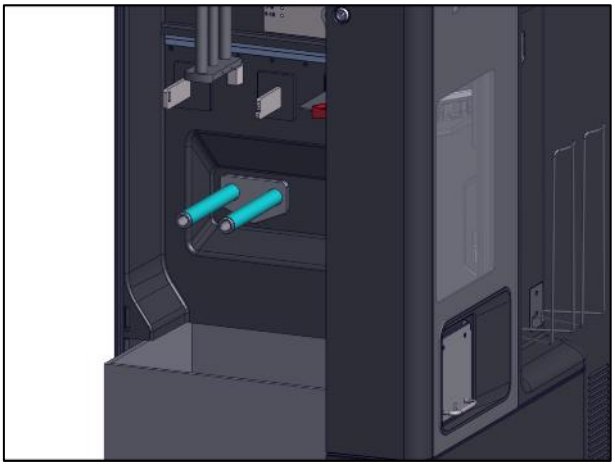


c. Sanitisation and disinfection

10. Once all the parts have been removed from the machine, clean the entire interior of the machine with a cloth and soapy water, paying special attention to the sensors that detect the pineapple and the container, as these must not be sprayed directly or cleaned with a cloth that could damage and/or scratch them. **We recommend using the juice cleaner.**

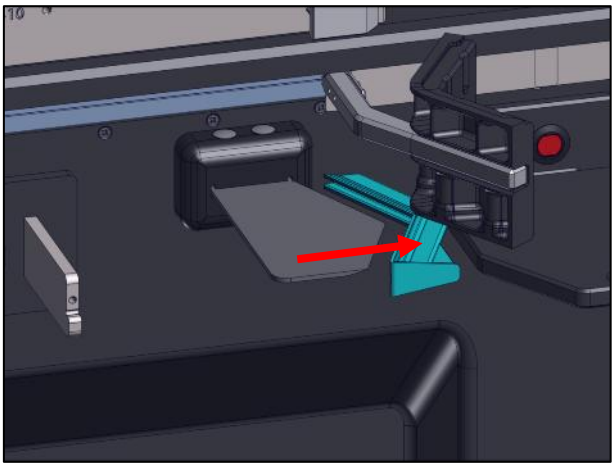


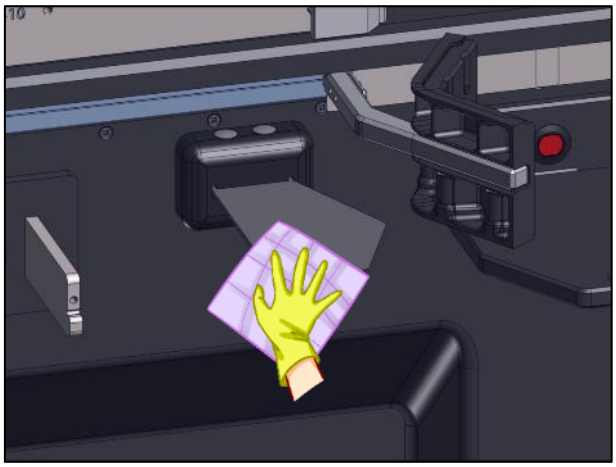
11. Clean the guides thoroughly, as this is very important for proper operation.



12. Remove the fixed blade guard and clean the blade.

> **CAUTION:** very sharp blade.

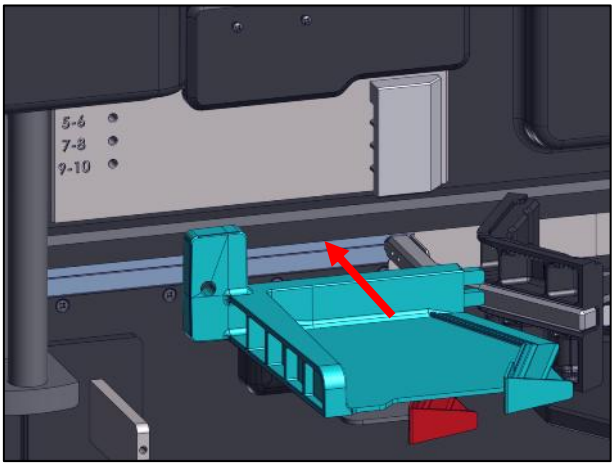


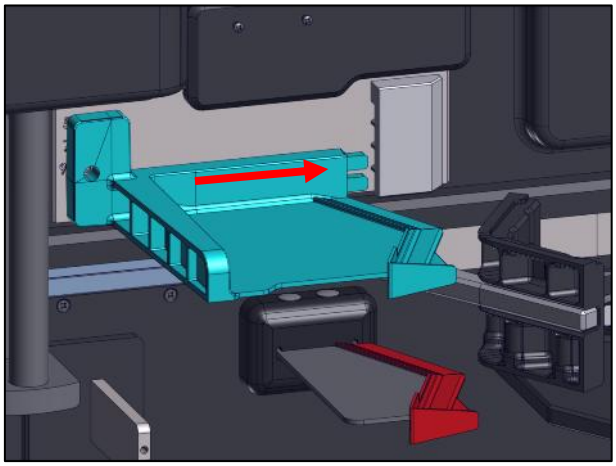


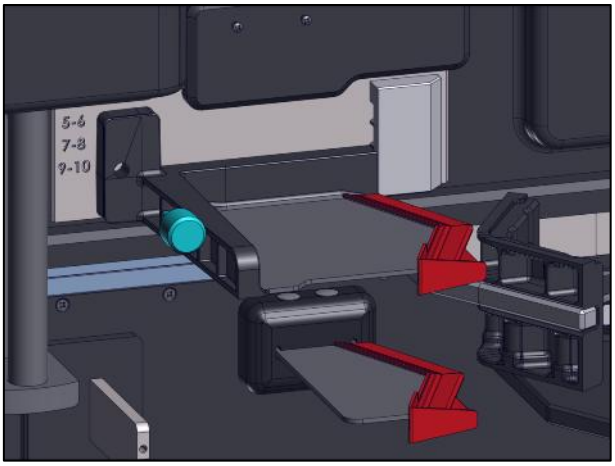
13. Spray the inside of the machine and all the components that have been removed from the machine and are in the waste drawer (if they have not been placed in the dishwasher) with disinfectant or Zummo Cleaner. Leave the disinfectant to take effect.
14. Once the disinfectant has had time to work, replace the blade guard.
15. Rinse all components and the machine with water.
16. Dry with a cloth or paper towel that does not leave any residue.

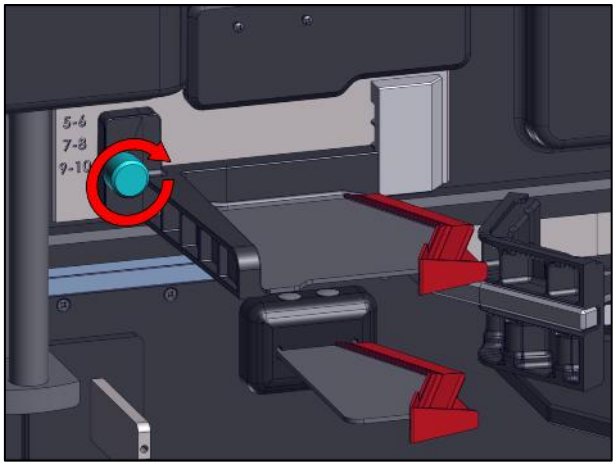
d. Assembly

17. Place the blade that cuts the top part in the correct position and secure it using the knob.



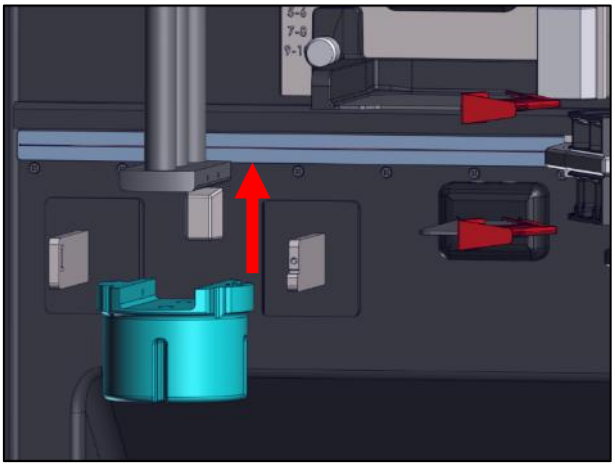


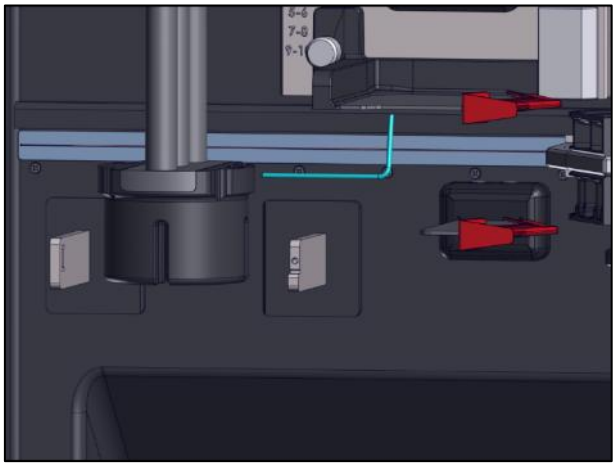


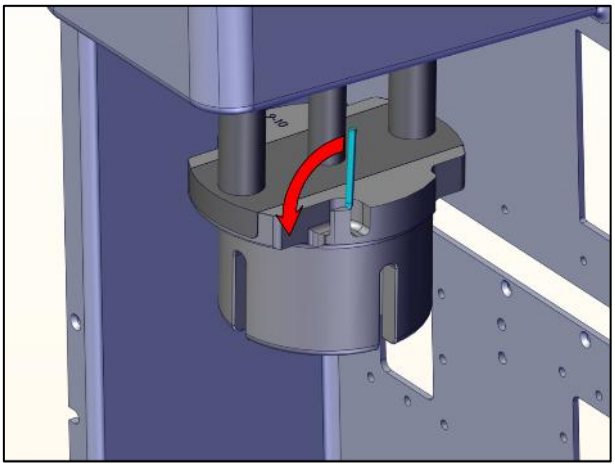


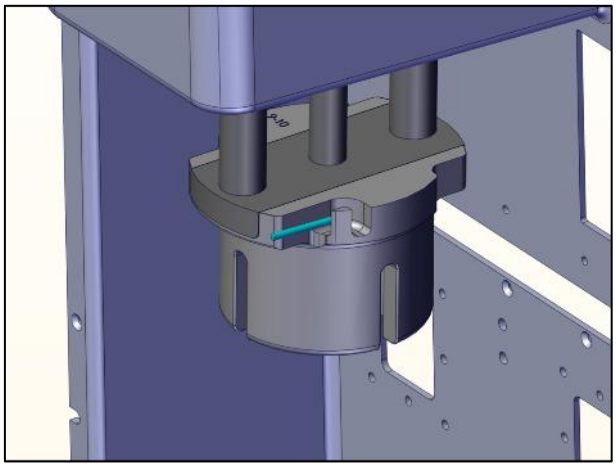
18. Place the black pusher and secure it using its locking pin.

> **IMPORTANT:** turn the locking pin to avoid damage to the machine.

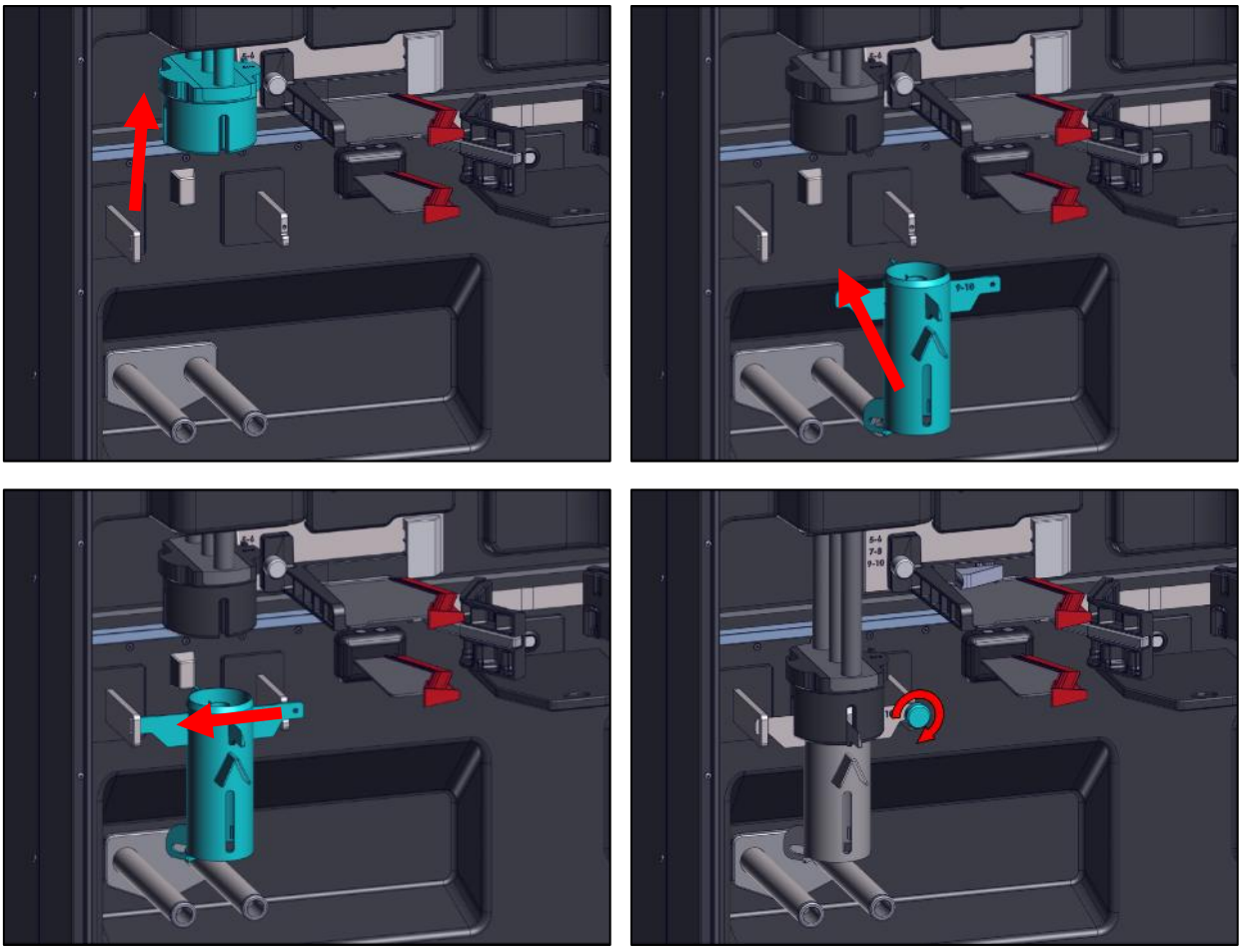




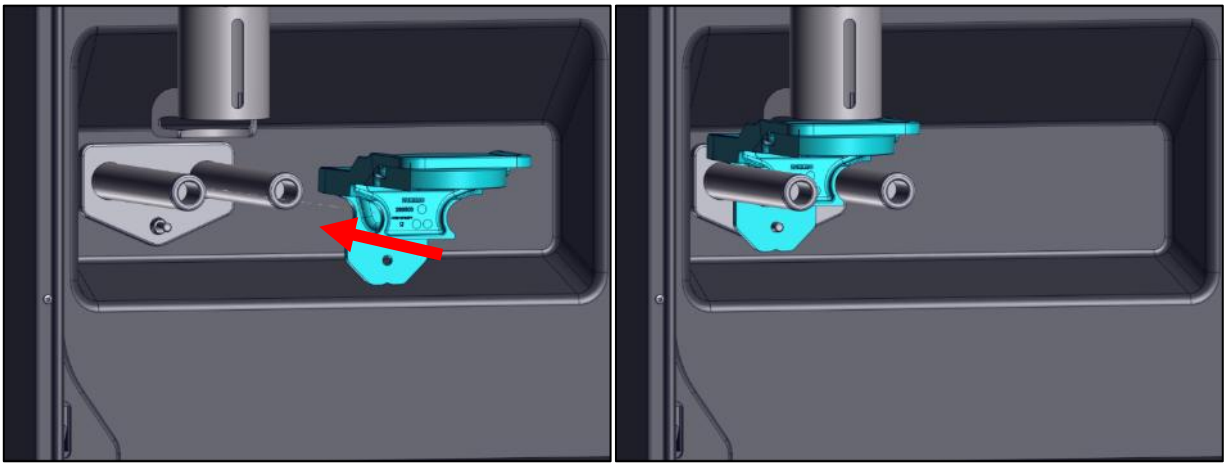


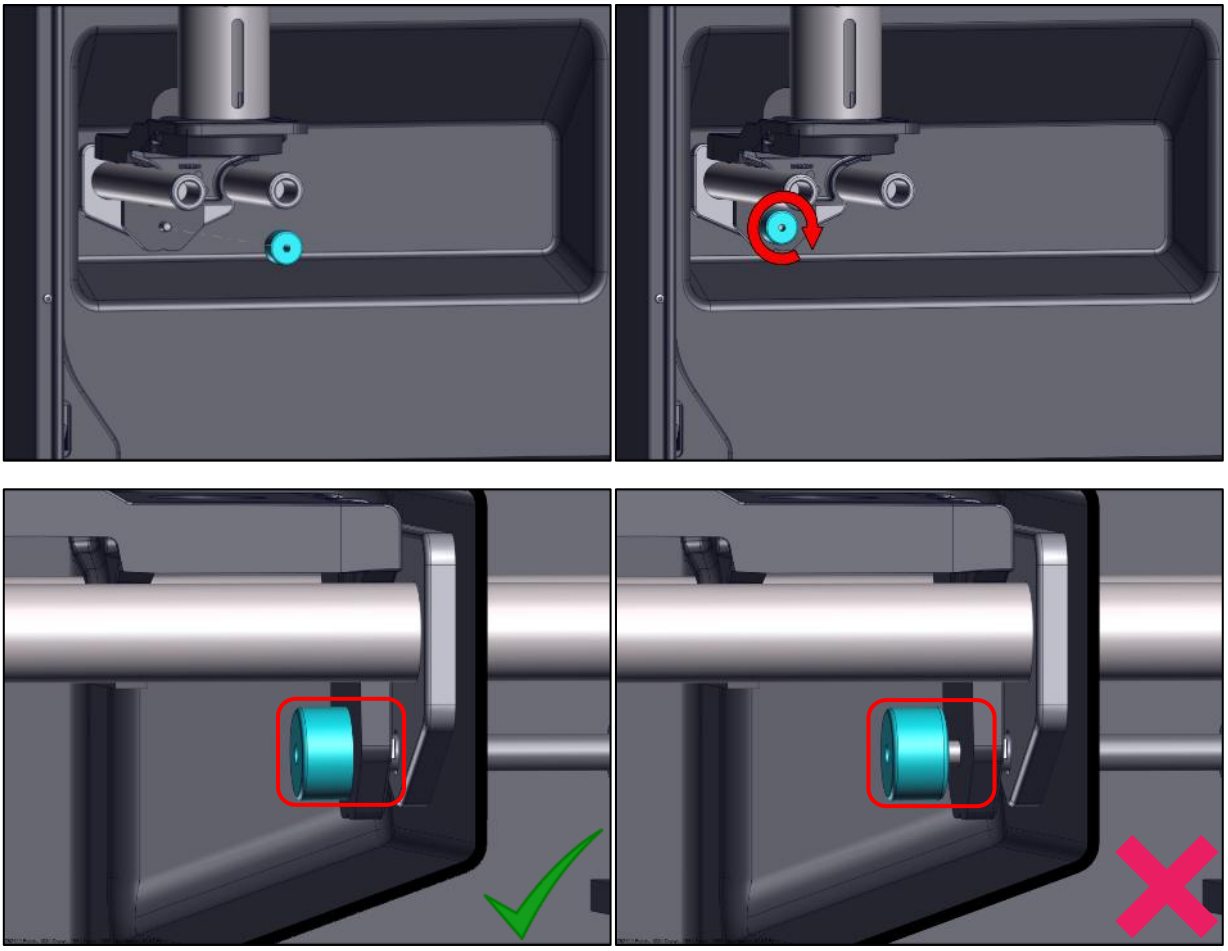


19. Lift the pusher and install the cylindrical blade. Tighten firmly with the nut and release the pusher.

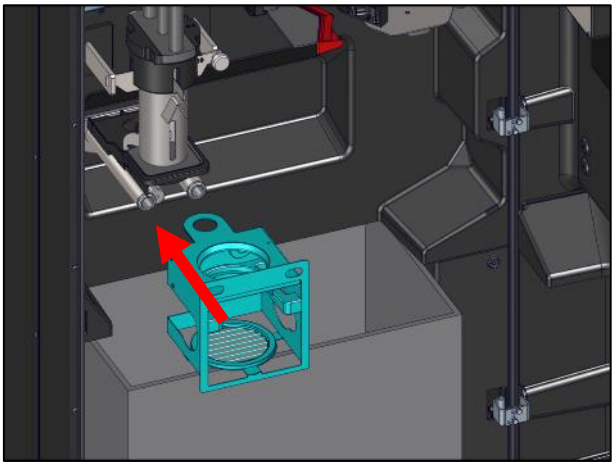


20. Place the slice blade or stick/block tray, securing it with its nut and tightening firmly.

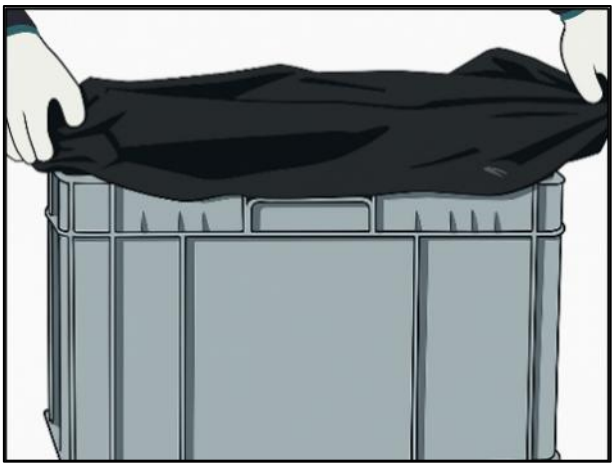


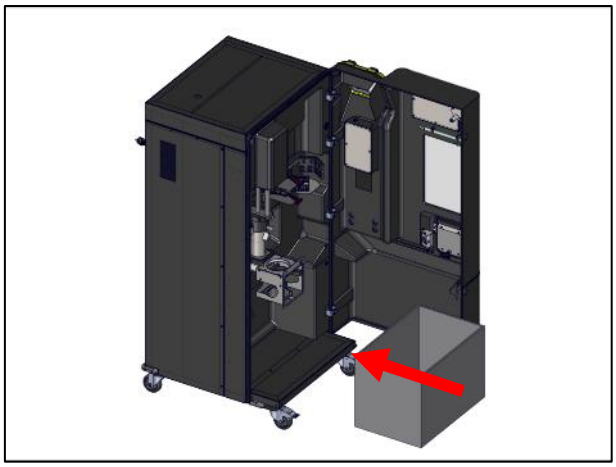


21. Position the metal drawer and insert it until it stops.

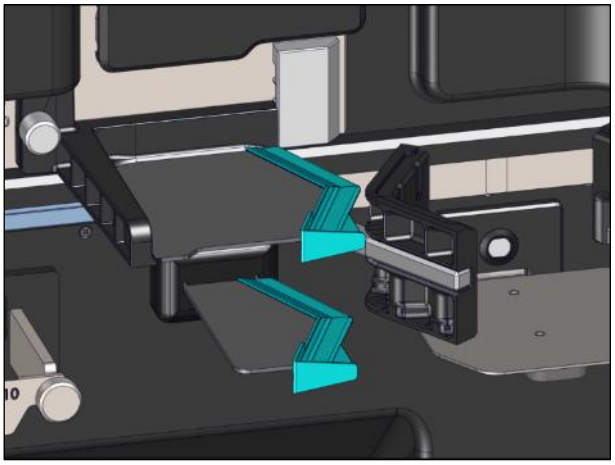


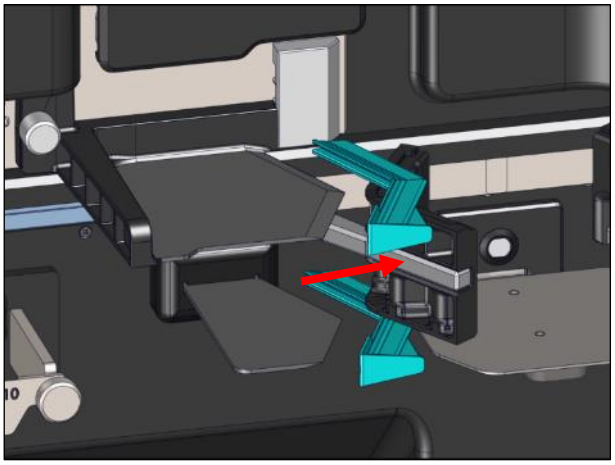
22. Place a new waste bag in the waste drawer and install it in its position.



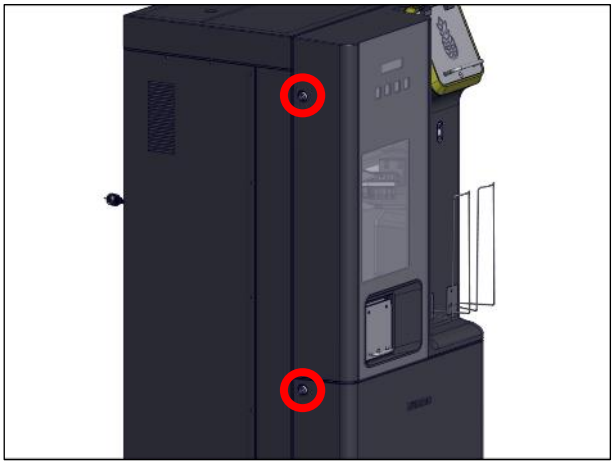


23. Visually inspect that everything is properly installed and remove the blade guards.





24. Close the front door and lock it using the locks.



25. Connect the machine to the mains and switch on the machine using the switch.

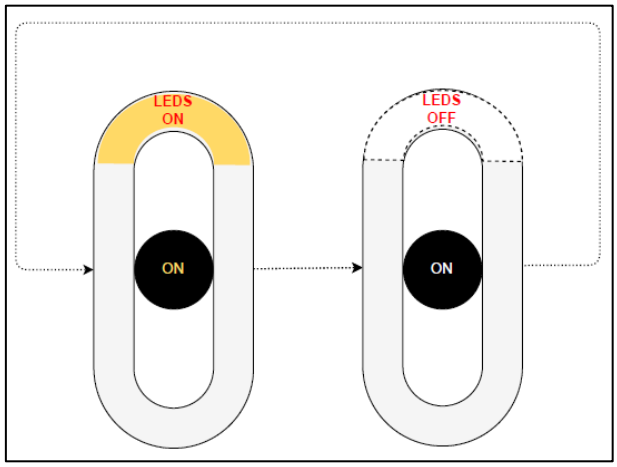
5 Safety systems, errors and how to fix them

Health and safety	NOTE: Wear gloves when handling the blade without protection	

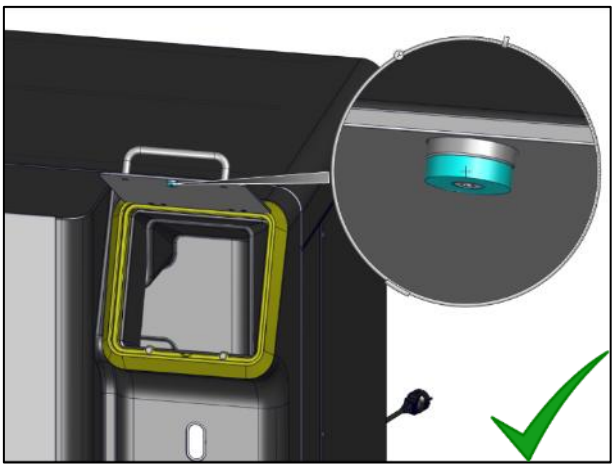
The machine has several safety systems:

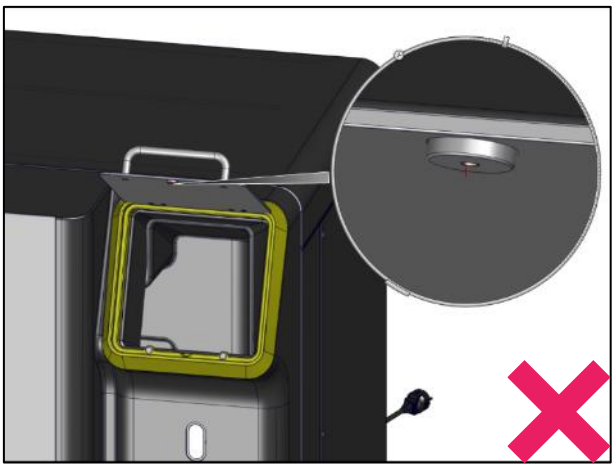
a. Pineapple feed door

- **Error display**: if the pineapple feed door is not closed properly, the machine will not operate, and the upper part of the oval and the ON button will flash.



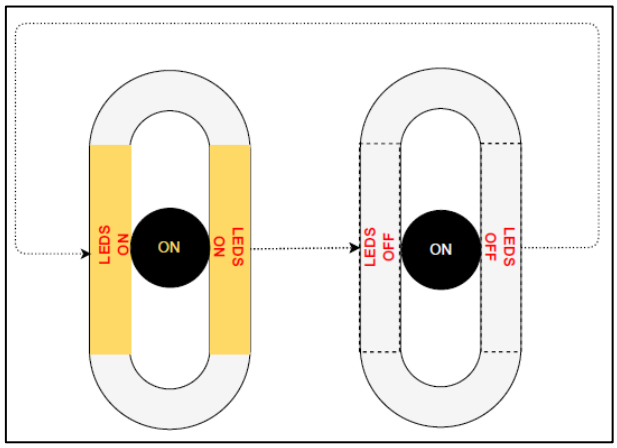
- **Solution**: Check that the door is properly closed and that the magnet is installed. If everything is correct, check the sensor (**point 7.a.i.**).



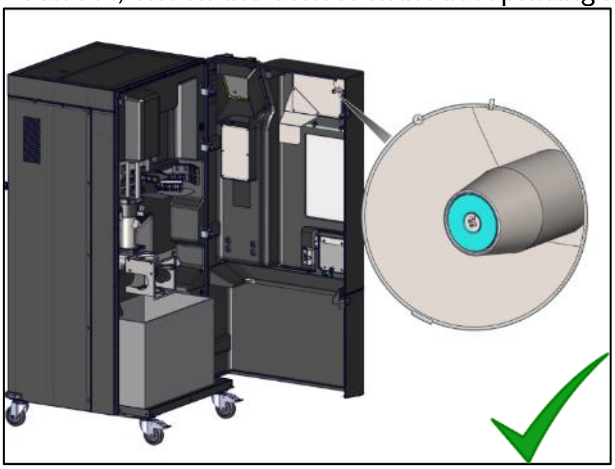


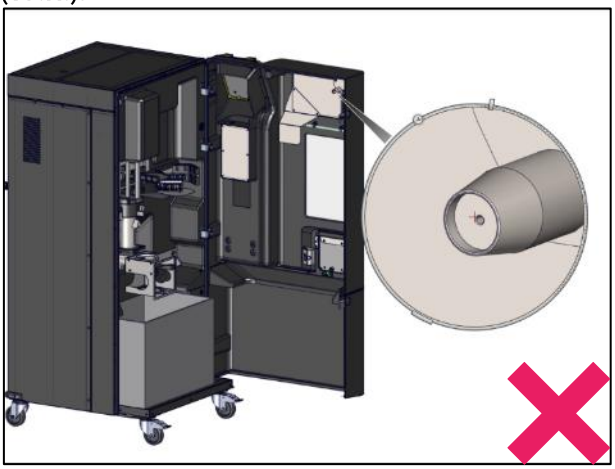
b. Front door

- **Error display**: If the door is not closed properly, the machine will not work, and the central side sections of the oval and the ON button will flash.



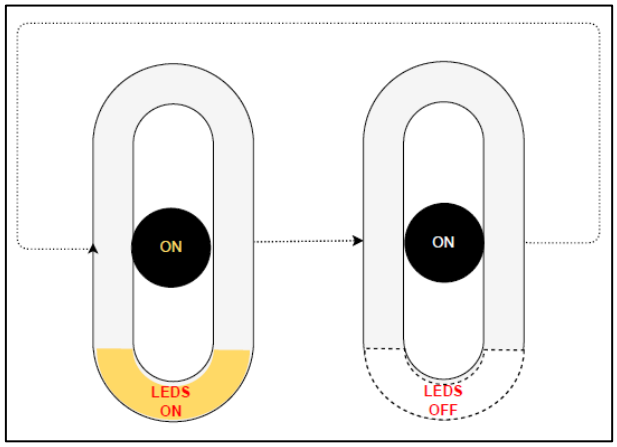
- **Solution**: Check that the door is properly closed and that the magnet is installed. If everything is correct, check the sensor without replacing it (**10.h.**).



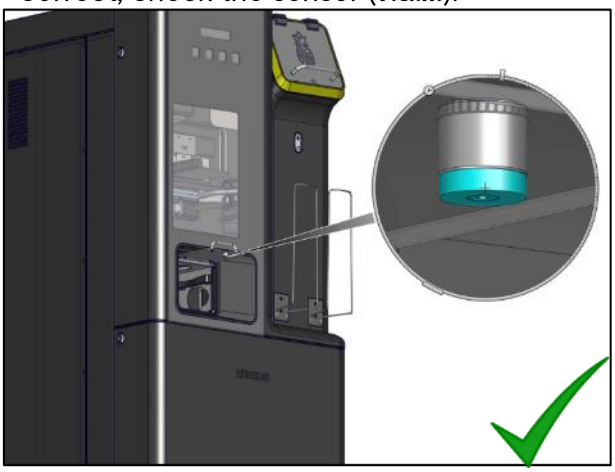


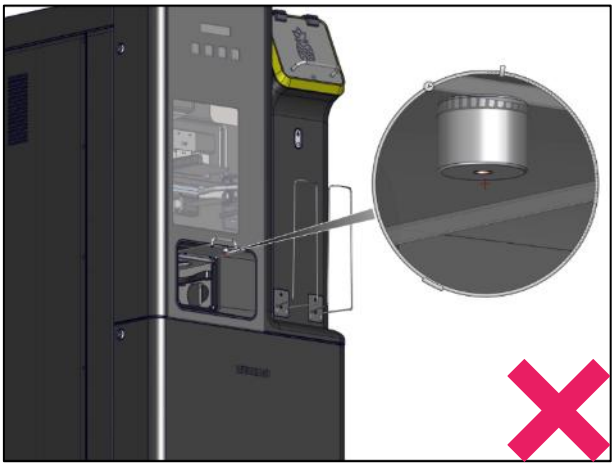
c. Can insertion door

- **Error display**: If the can insertion door is not closed properly, the machine will not work, and the lower section of the oval and the ON button will flash.



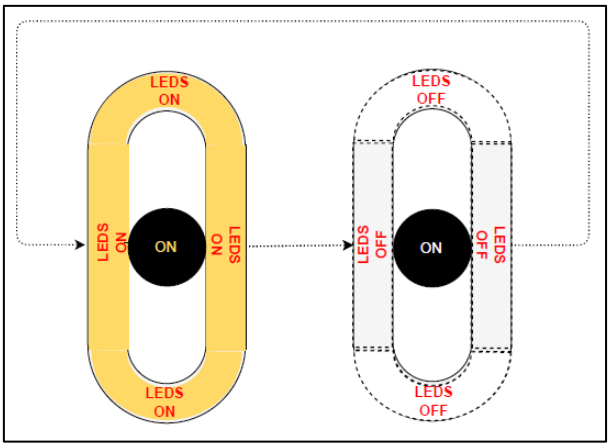
- **Solution**: Check that the door is properly closed and that the magnet is installed. If everything is correct, check the sensor (**7.a.ii.**).





d. General error at start-up

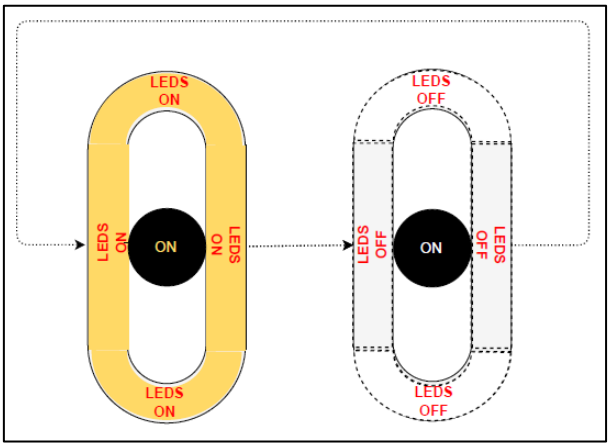
- **Error display**: If, for any reason, when the machine is turned on and all the cylinders move to their initial position, there is a fault, the compressor will automatically stop after a few seconds, and the four sectors of the oval and the ON button will flash.



- **Solution**: Check that all components are correctly installed, the blades are properly positioned, and their nuts are tightened, and that there are no pieces of pineapple blocking the movement of any of the cylinders. **Check the initial conditions (section 9 of this manual).**

e. General error while cutting

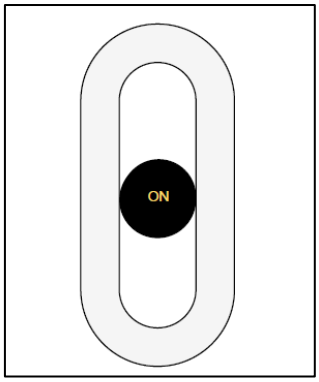
- **Error display**: If for any reason the machine malfunctions while in operation, the compressor will automatically stop after a few seconds, and the four sectors of the oval and the ON button will flash.



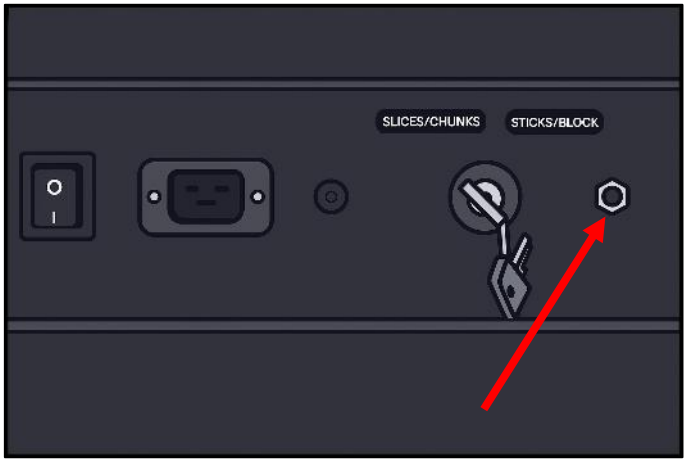
- **Solution**: Check that all components are correctly installed, the blades are properly positioned, and their nuts are tightened, and that there are no pieces of pineapple blocking the movement of any of the cylinders. If everything is correct, check all the cylinder sensors acting on the valve island **(point 7.b)**.

f. Icons

- **Error display**: The touch screen and all icons for the steps to follow are not lit. **Software prior to version 17.**



- **Solution:** Check if the compressor circuit breaker is active by resetting the rear button. If it is active, check the compressor (point 10.b.).

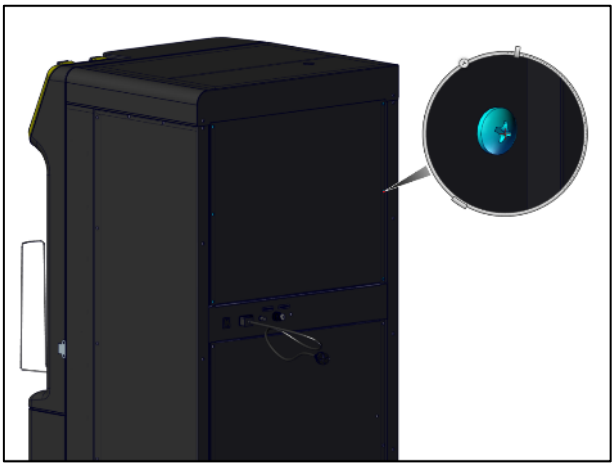


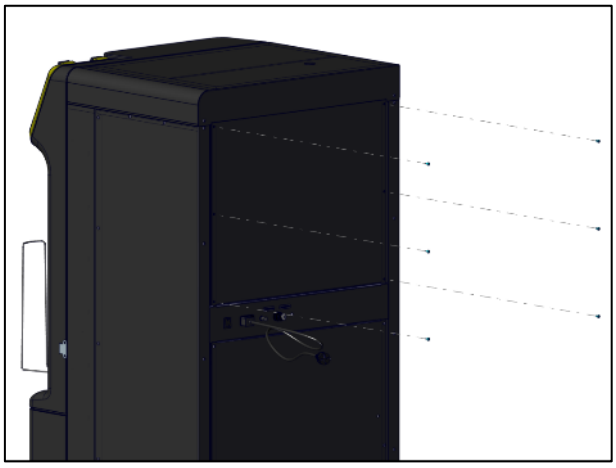
6 Access to internal components

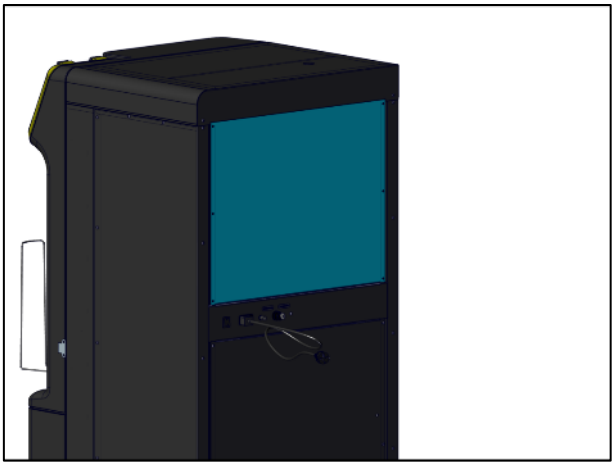
SST	NOTE: Check that the machine is disconnected from the switch and the mains and use gloves when handling the unprotected blade.	

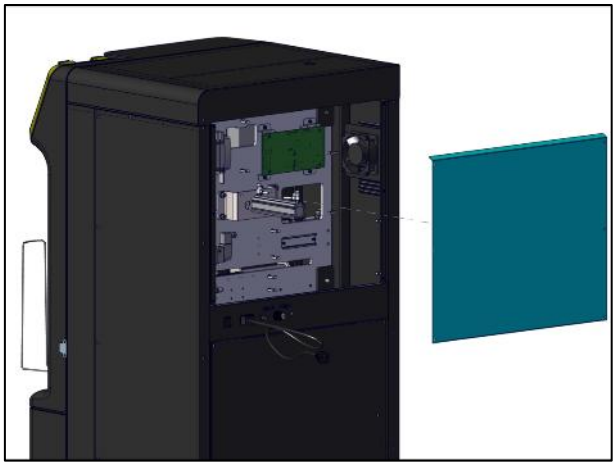
a. Access to the control and command area (top cover)

- Remove the 6 screws holding the upper rear cover and remove it to access the interior.



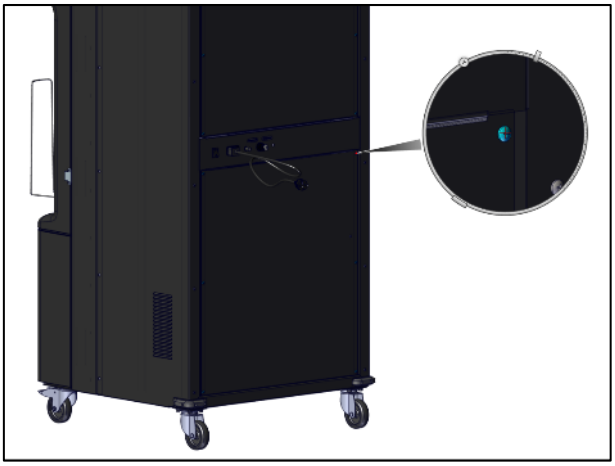


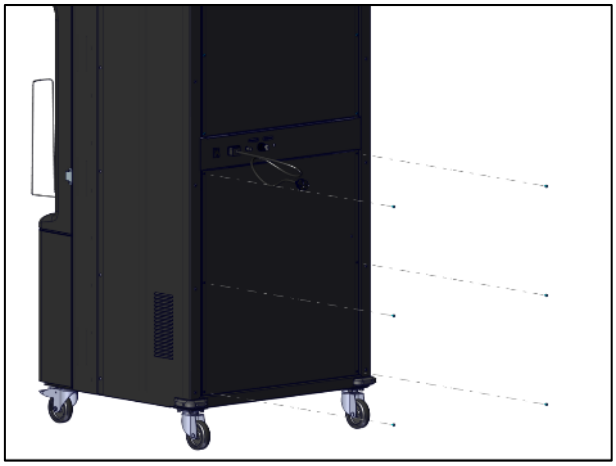


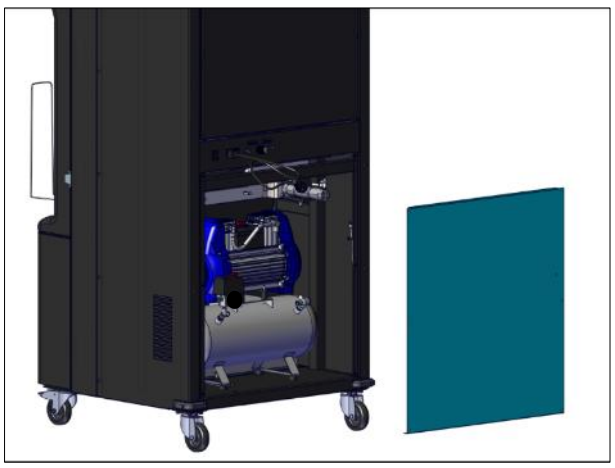


b. Access to compressor area (lower cover)

- Remove the 6 screws securing the rear bottom cover and remove it to access the interior.







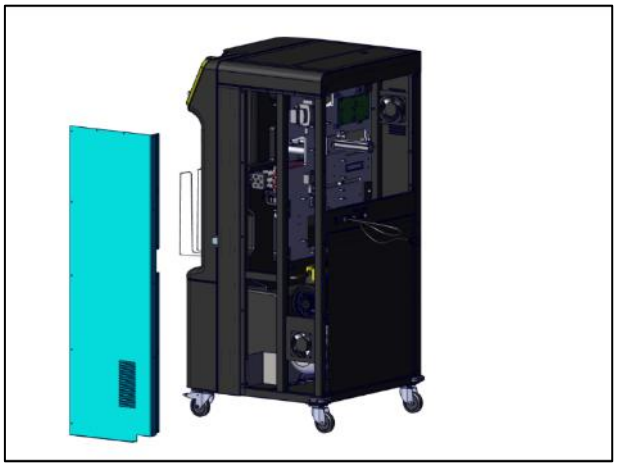
c. Side covers

i. Right cover

NOTE: To remove the side covers, the top and bottom covers must be removed first.

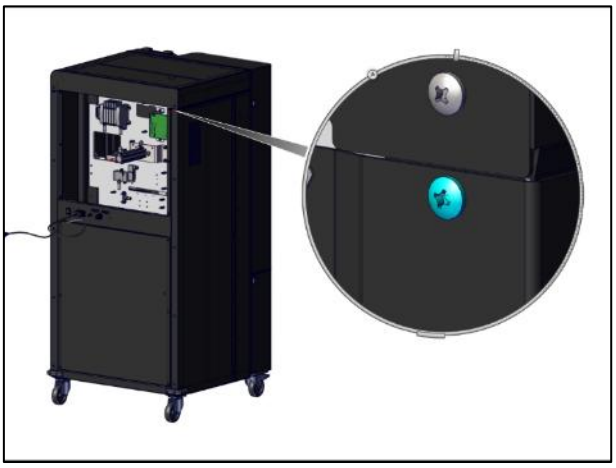
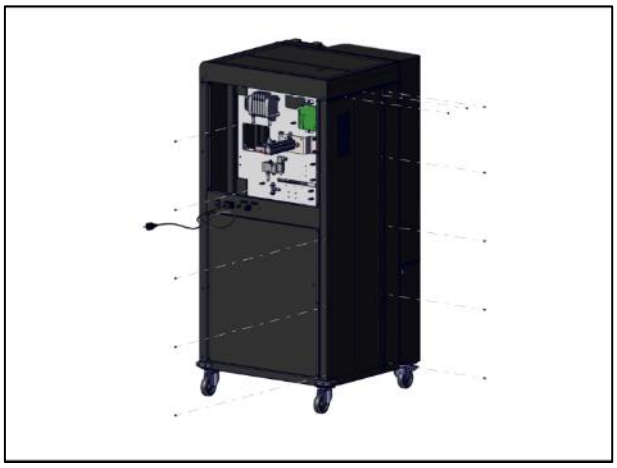
- Remove the 12 screws that secure the right-side cover, then remove it to access the interior.



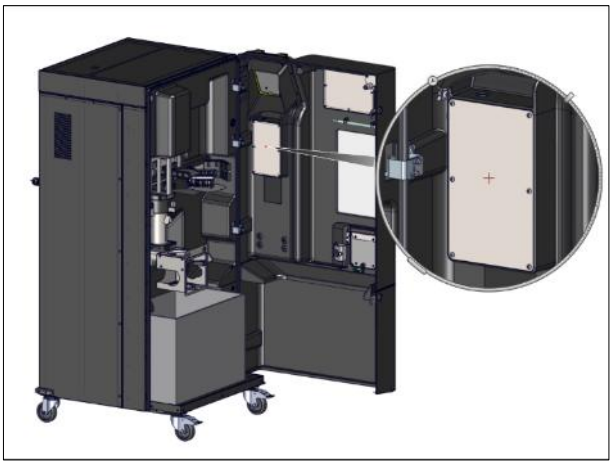
ii. Left cover

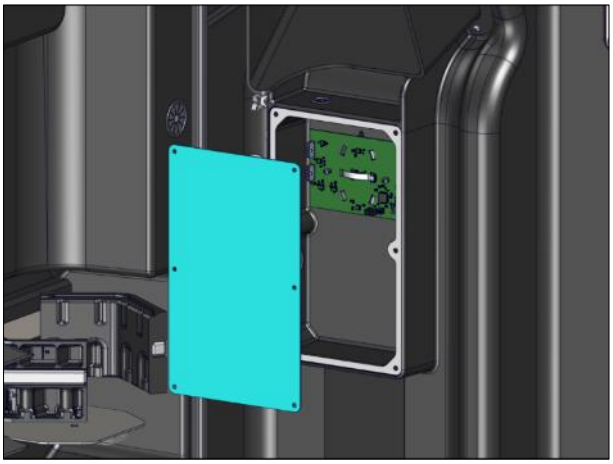
- Remove the 12 screws that secure the left side cover, then remove it to access the interior.

d. Access to touch plate and door sensor insertion

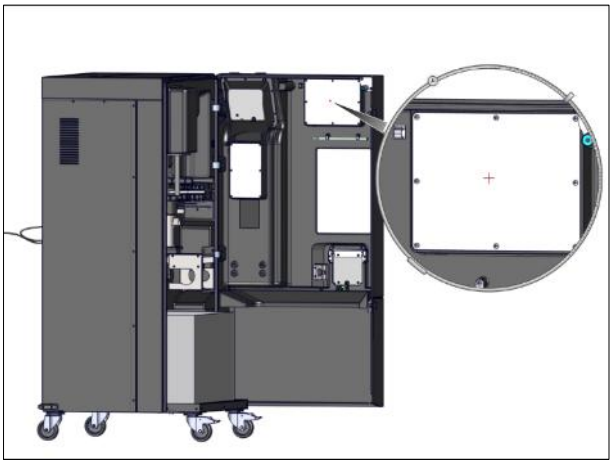
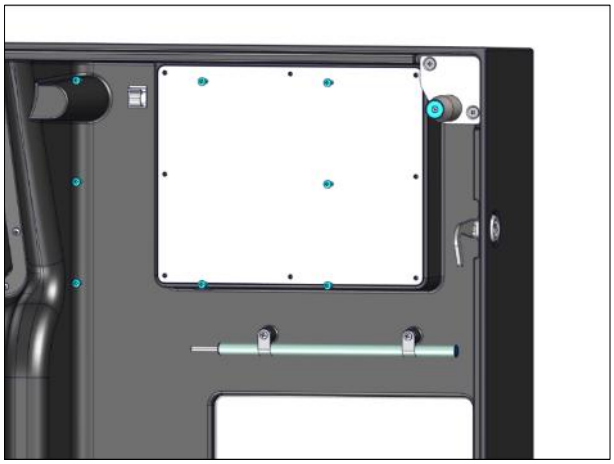
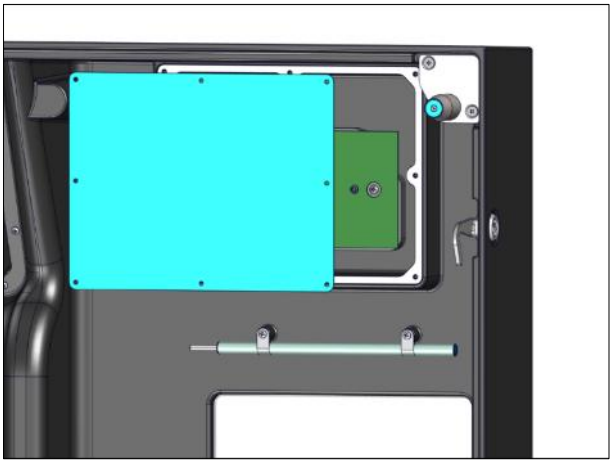
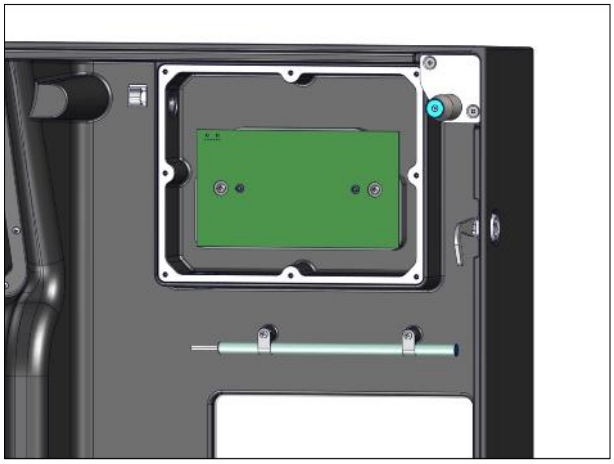
- Remove the screws and cover from the board housing.





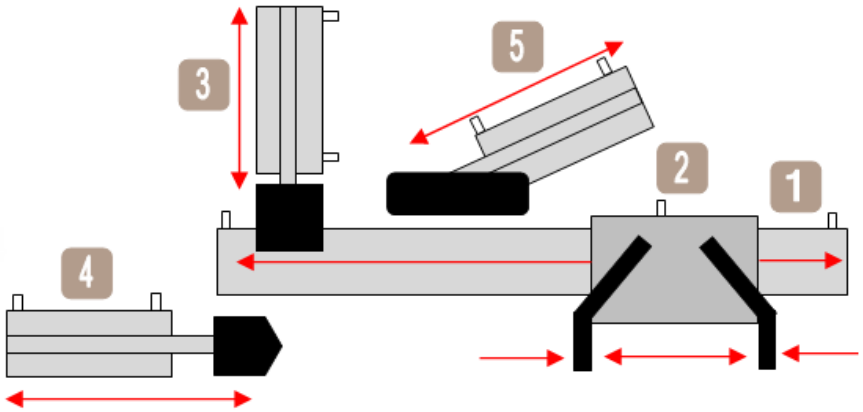
e. Accessing the PCB LEDs: steps to follow

- Remove the screws and the cover from the board housing.

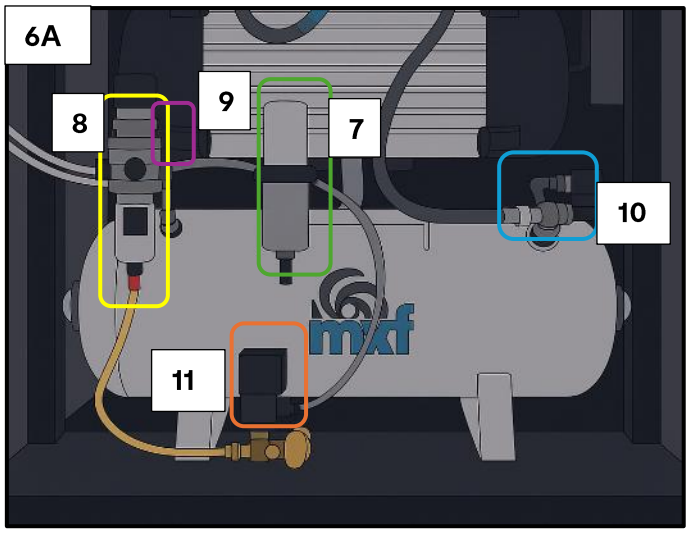
7 Pneumatic and electro-pneumatic components

a. Pneumatic actuators

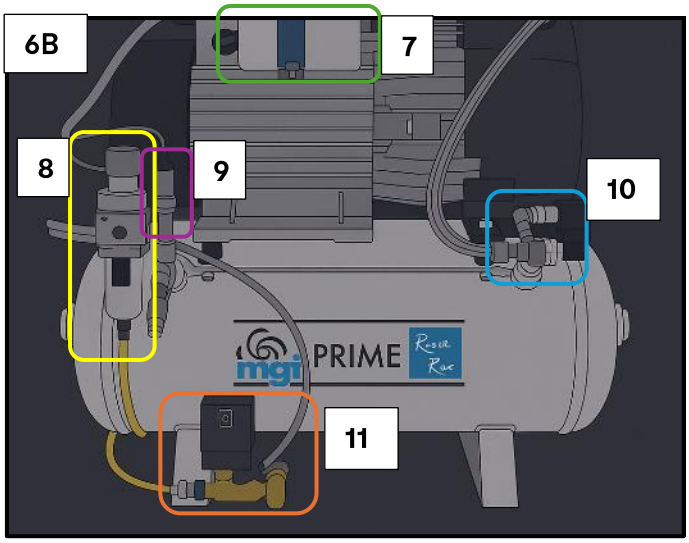


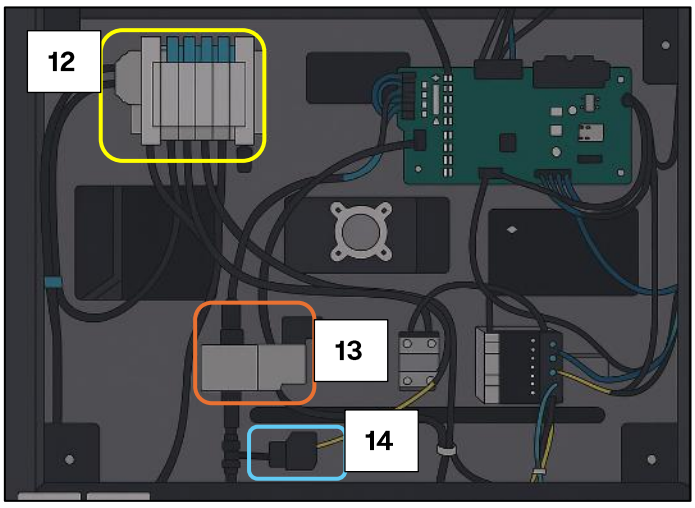
1. Horizontal displacement cylinder
2. Clamp (pineapple picker)
3. Peeling cylinder
4. Slice/chunk/stick cylinder
5. Crest ejector cylinder
   6A. Voltage compressor assembly B
   6B. Voltage C compressor assembly
7. Start-up condenser
8. Maintenance unit
9. Pressure sensor
10. Air discharge safety valve
11. Tank drain valve
12. Valve block
13. General air inlet valve
14. Safety pressure switch 1
15. Speed/flow regulators

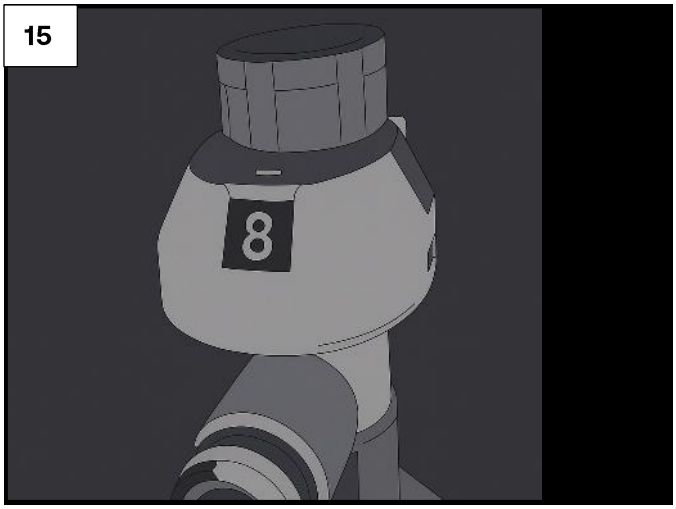
220V compressor



110V compressor





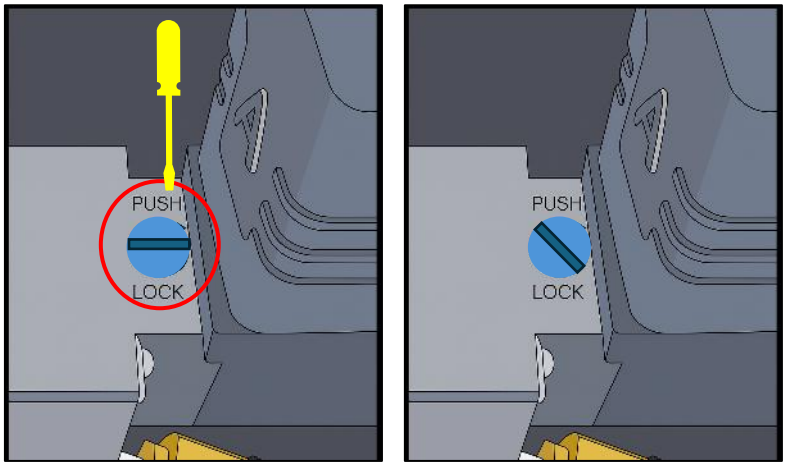


b. Valve island

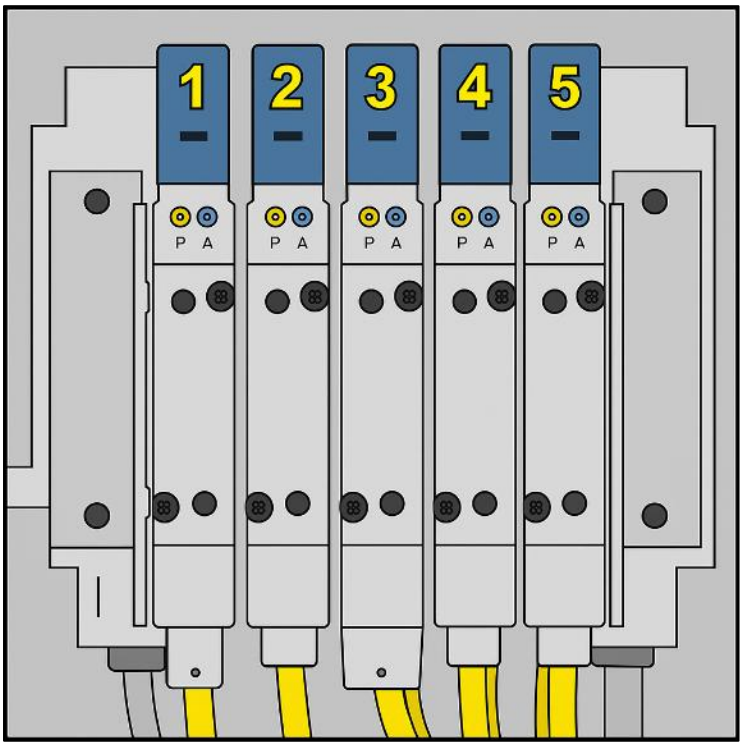
Each valve controls a cylinder or pneumatic actuator and lights up green or red when activated (receives power from the board). Green on the right and red on the left.
In order to check each valve manually and activate the cylinders to move them, the main valve must first be activated so that air can reach the valve island.
Then press the yellow or blue button depending on the valve you want to activate.
There are two ways to activate the main valve:

- By connecting the yellow cable from the valve to the red cable on the electronic board.

- Acting on the screw incorporated in the valve. (Not recommended)



IMPORTANT: Deactivate the main valve before turning off the machine.



1P. Right horizontal displacement cylinder.
1A. Left horizontal displacement cylinder.

2P. Pine cone gripper opens
2A. Pine cone gripper closes.

3P. Peeling cylinder down
3A. Peeling cylinder up.

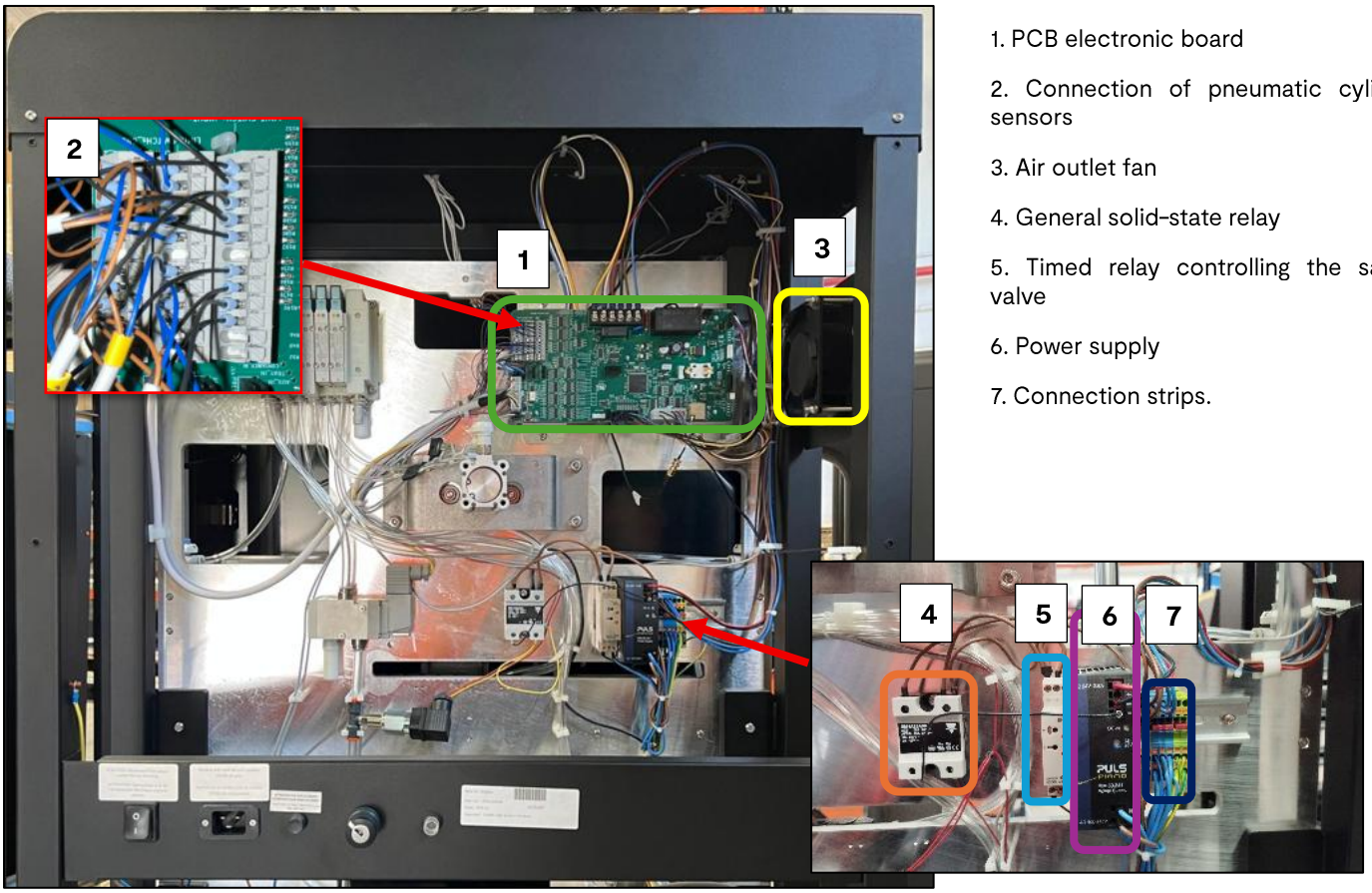
4P. Cylinder ejects crest, exits
4A. Cylinder ejects crest, enters.

5P. Slice cylinder enters
5A. Slice cylinder exits

To check that all cylinders are working, press button A or B depending on which cylinder you want to move.

IMPORTANT: take special care when moving the linear cylinder so that it does not hit the peeling cylinder.

8 Electrical components

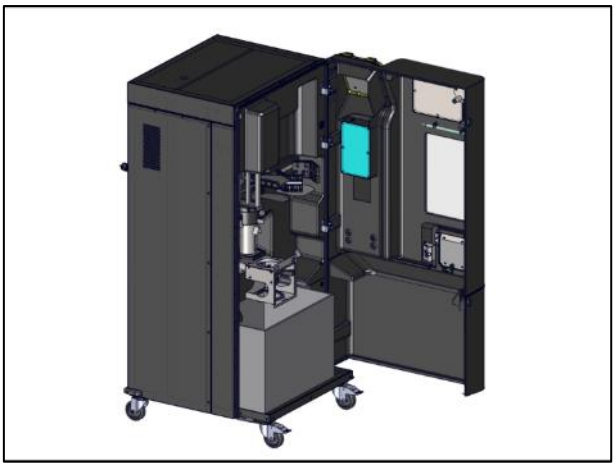


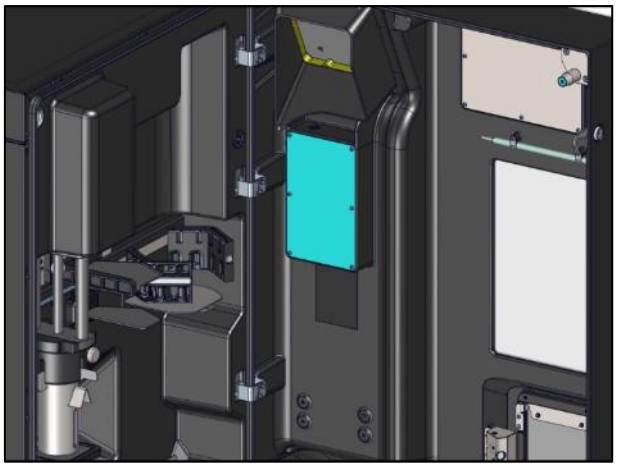
1. PCB electronic board
2. Connection of pneumatic cylinder sensors
3. Air outlet fan
4. General solid-state relay
5. Timed relay controlling the safety valve
6. Power supply
7. Connection strips.

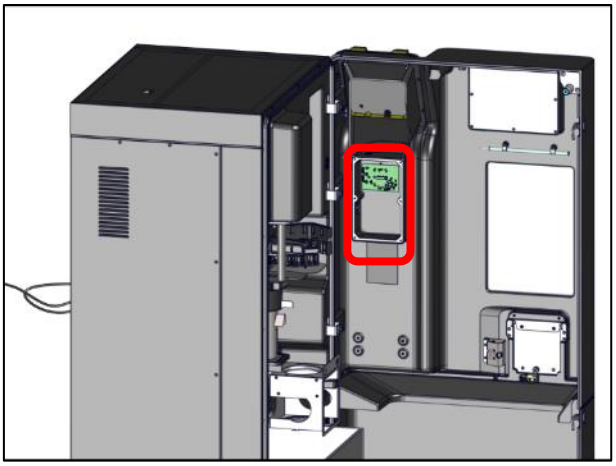
a. Sensor location and connection

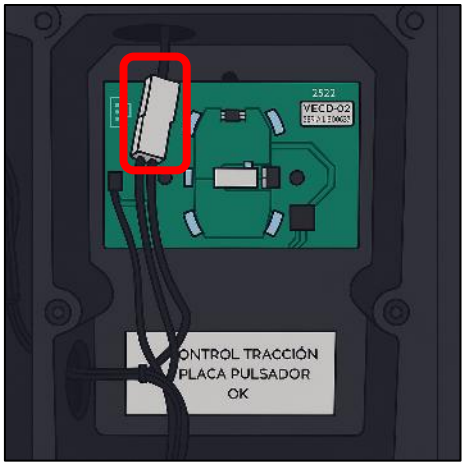
i. Pineapple insertion door sensor

The pineapple insertion door sensor connector is located by removing the cover where the touch sensor is located (**point 6**).

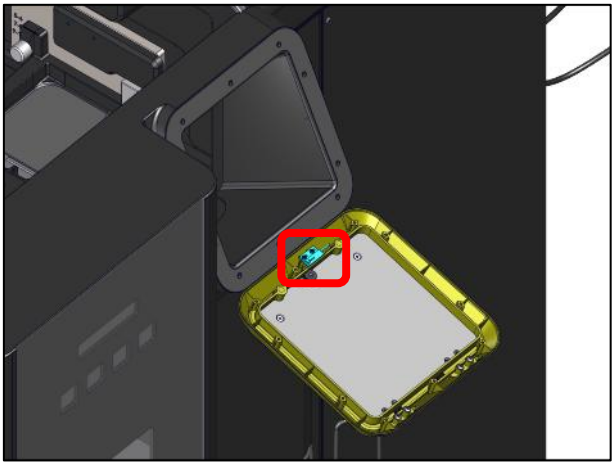






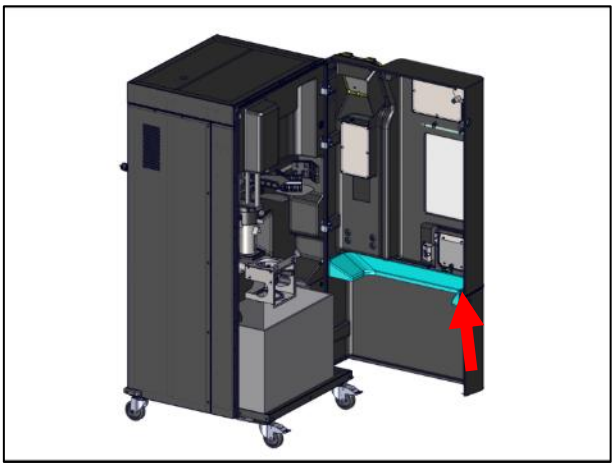


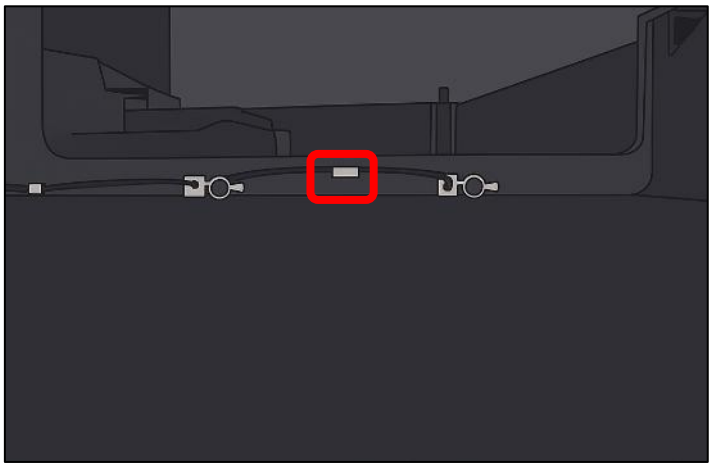
- The sensor is located on the trim frame of the fruit insertion cover (**point 11.f.**).



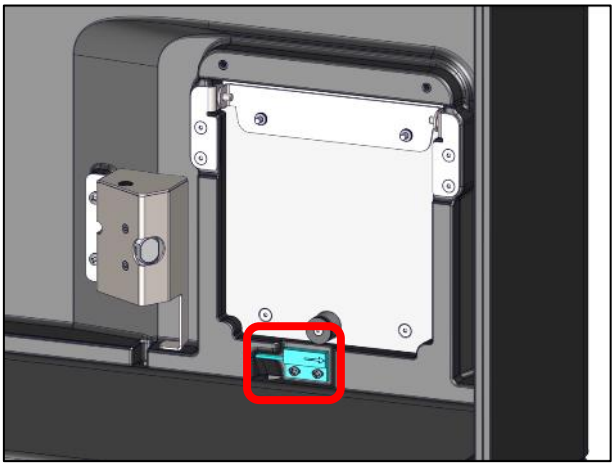
ii. Jar insertion door sensor

- The connector for the jar insertion door sensor is located under the intermediate funnel, as shown in the images.



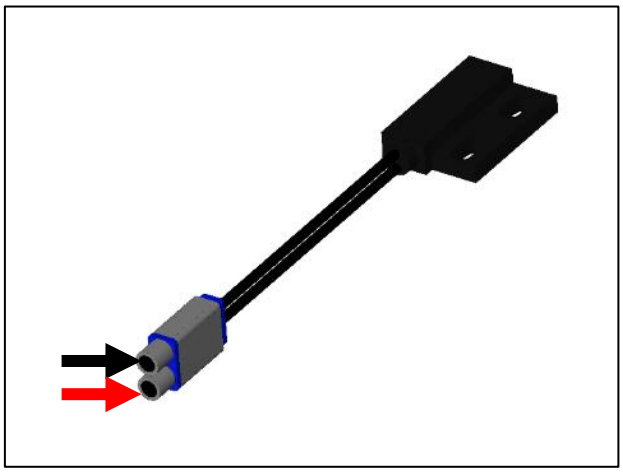


- The sensor is located on the jar insertion cover (**point 11.g.**).

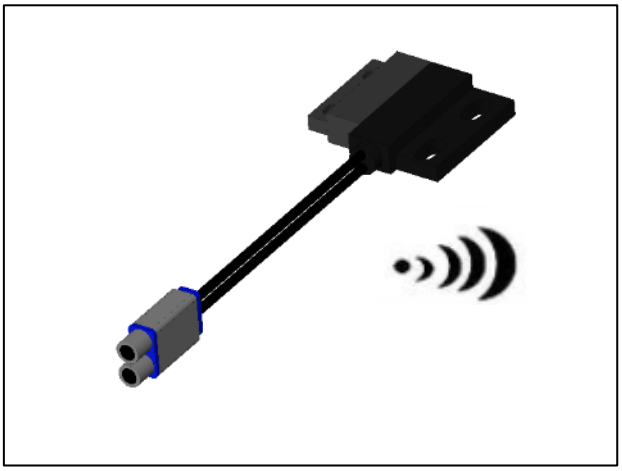


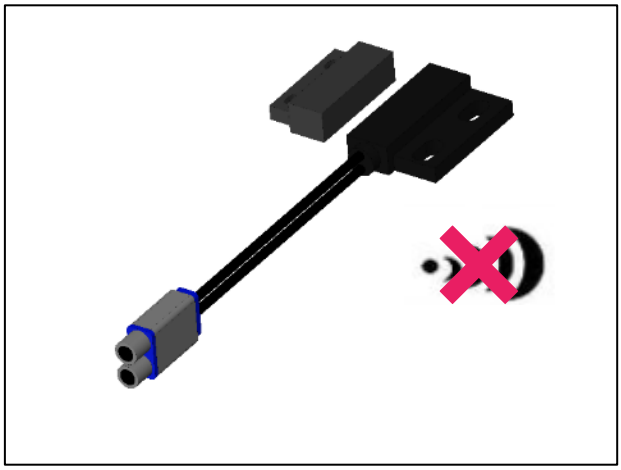
IMPORTANT: how to check a Hall sensor

- Using a multimeter set to continuity mode, connect each of the tips to the ends of each sensor cable.



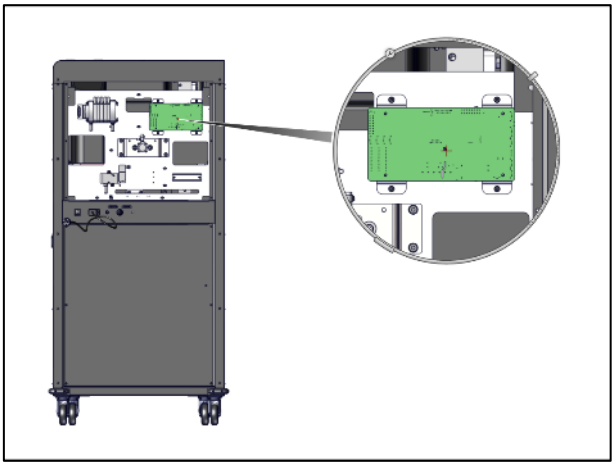
- Using a magnet, bring the magnet close to the sensor and check for continuity. With the magnet close to the sensor, there should be continuity, and when it is moved away, there should be no continuity.

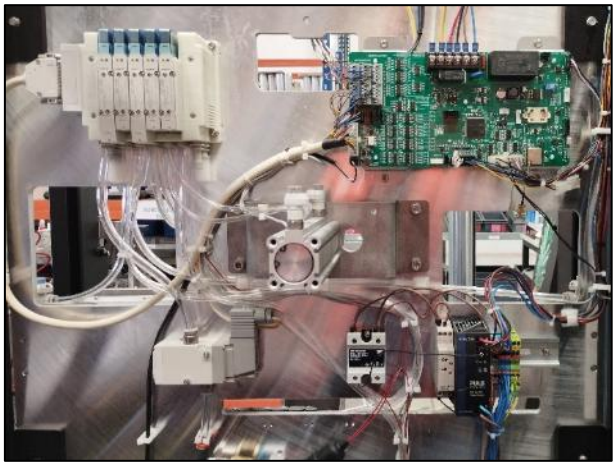


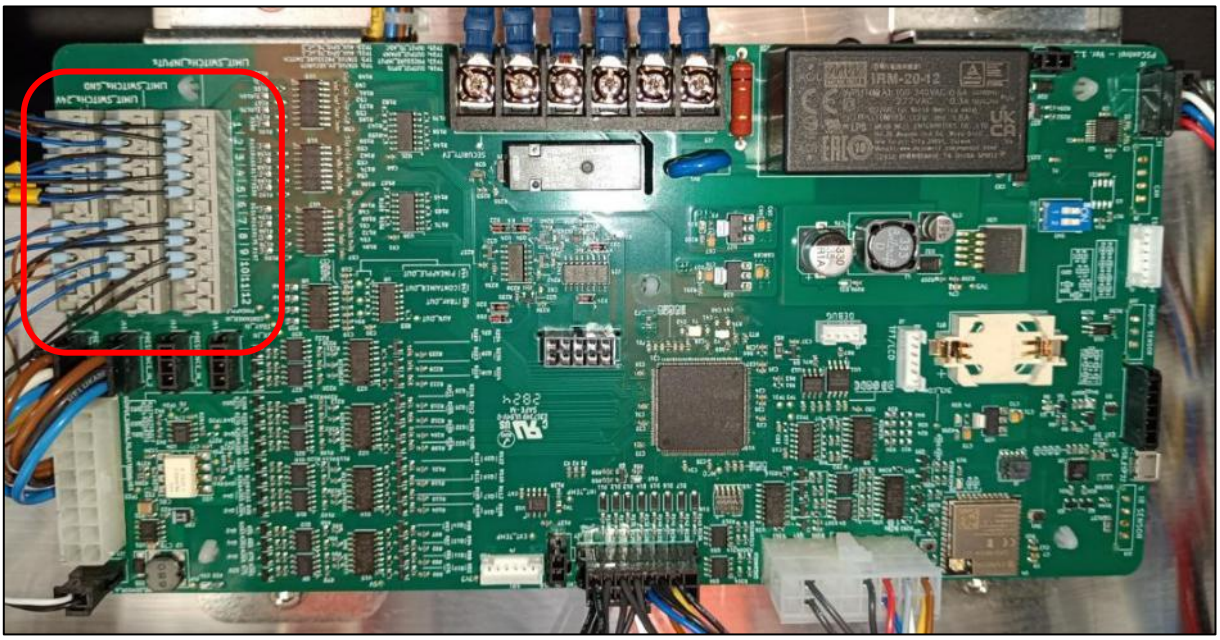


iii. Cylinder start/end position sensors

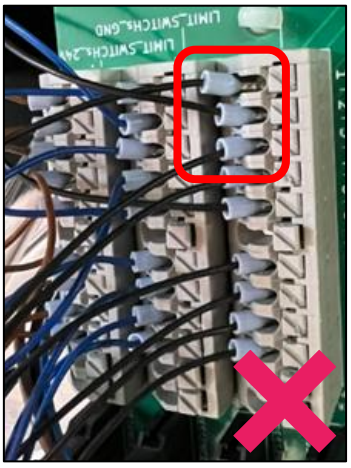
- The sensor wiring is located on the machine's CONTROL PCB board.

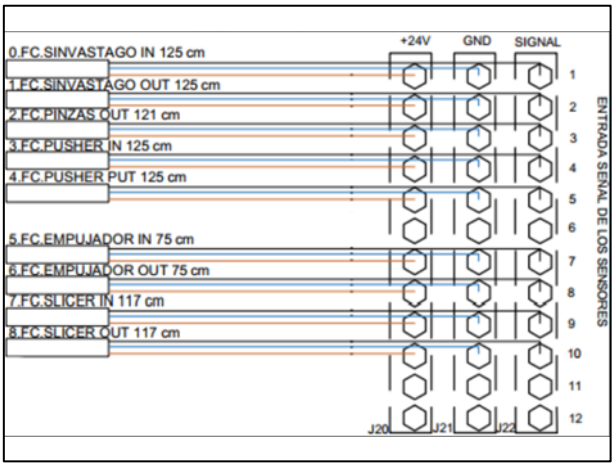


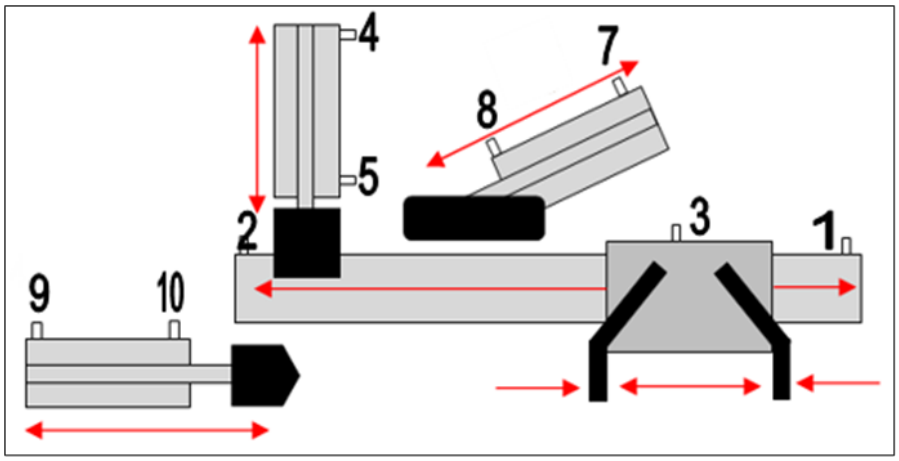




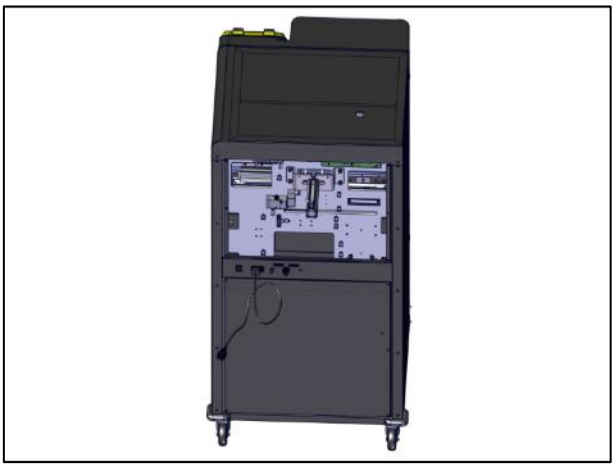
- The connectors must be properly connected.

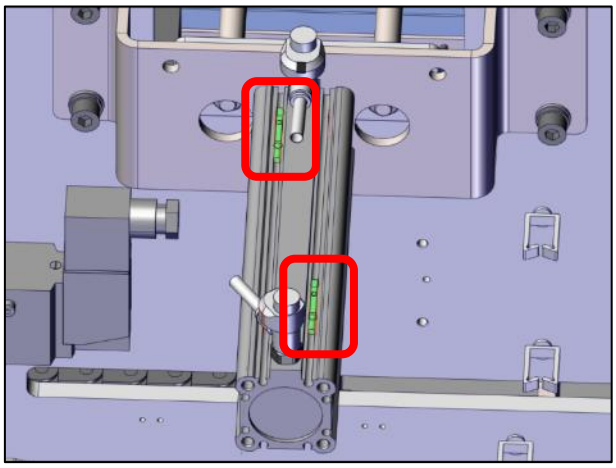






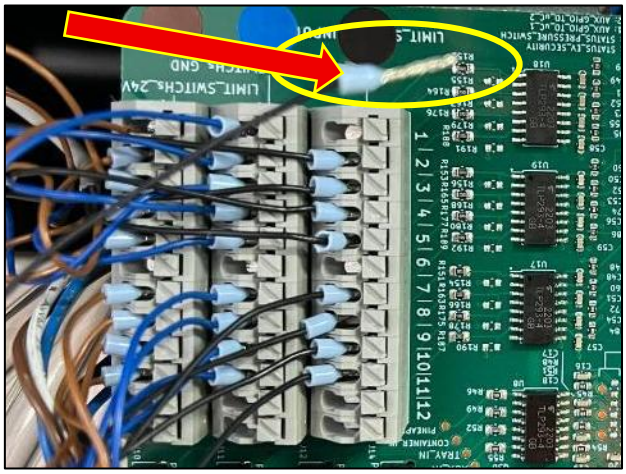
- All cylinders except the clamp cylinder are assigned a sensor that detects the extended position and another that detects the retracted position.

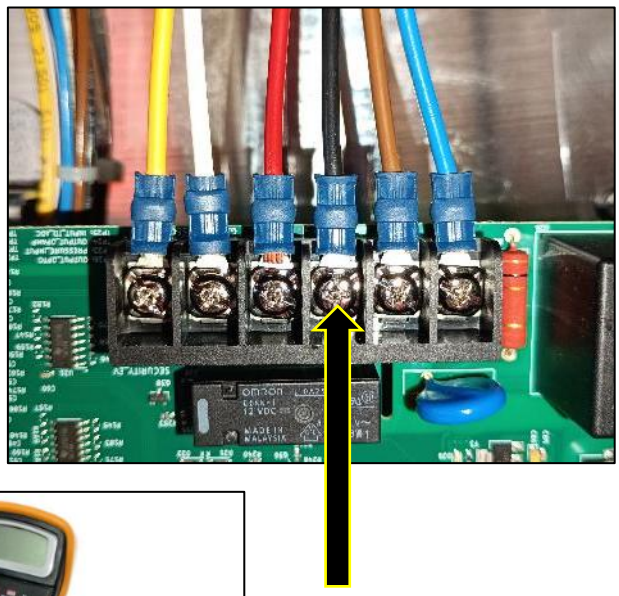




IMPORTANT: how to check an inductive cylinder sensor

- Using a multimeter set to VDC, disconnect the black cable from the sensor and connect it to the red tip of the multimeter and the black tip to 0VDC (negative -).

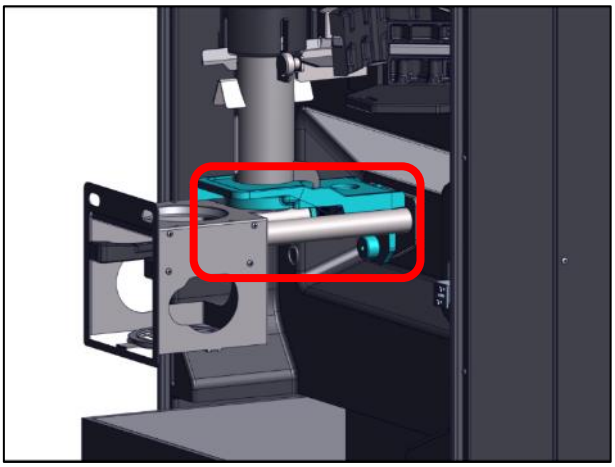


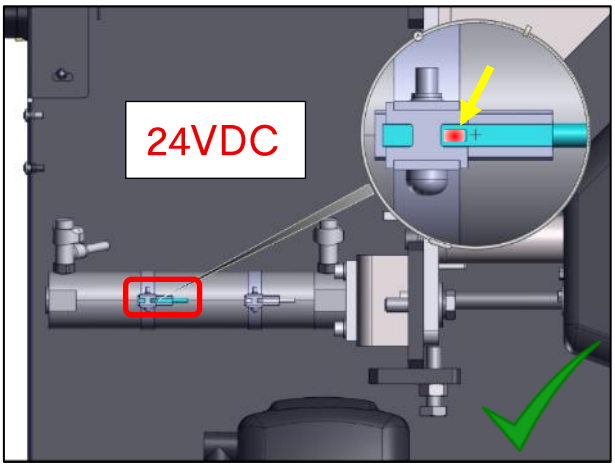


- Check that the sensor lights up when it detects the position of the cylinder and that 24VDC is received, and that when the position is not detected, it should not light up or receive 24VDC.

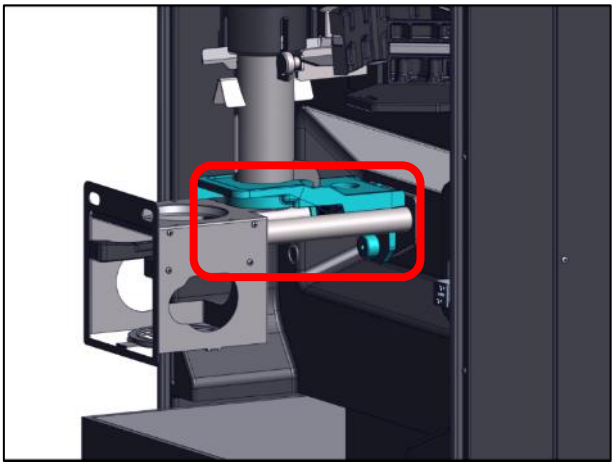
Example: Cylinder cut-off.

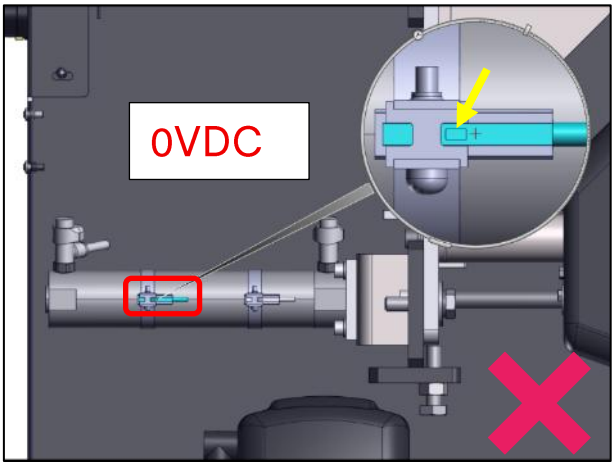
POSITION RETRACTED (detected, working correctly)



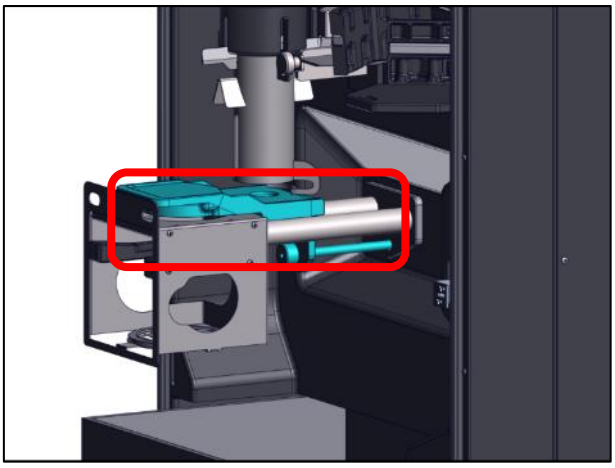


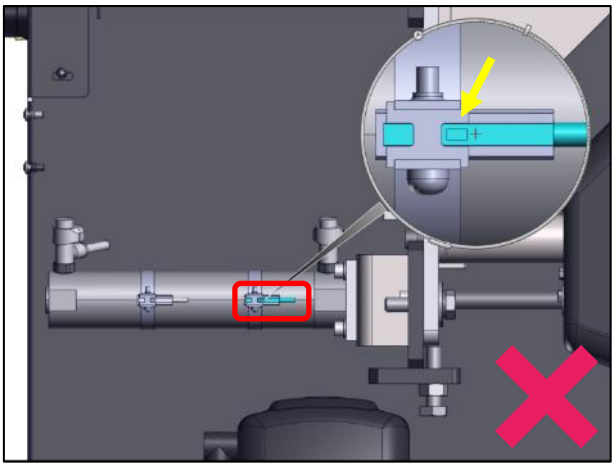
POSITION RETRACTED (**NOT** detected, incorrect operation)

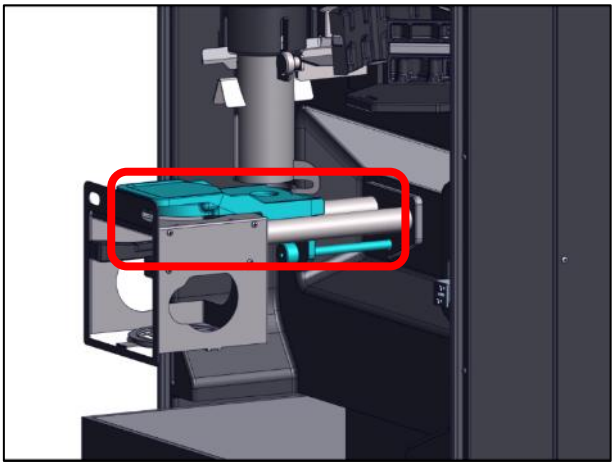


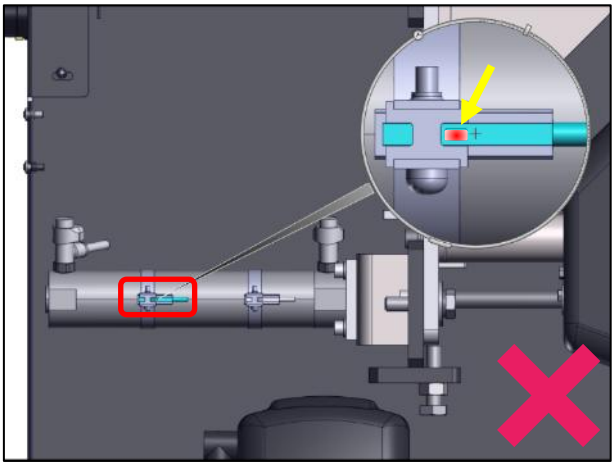


EXTENDED POSITION (**DOES NOT** detect its sensor or detects the retracted sensor, malfunction)



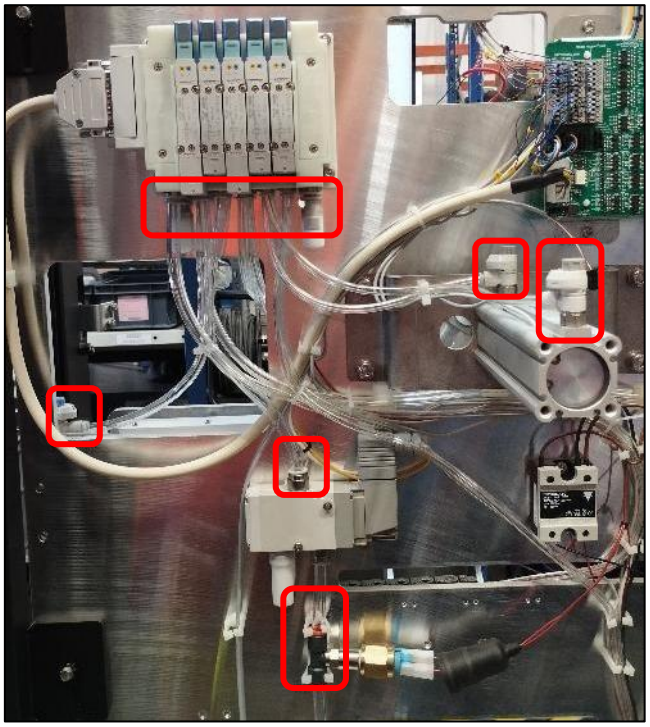


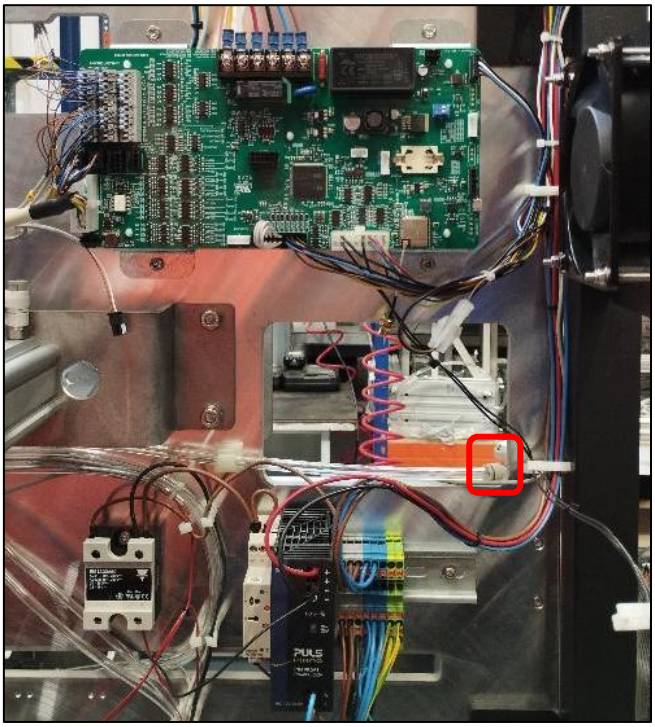




iv. Pneumatic tube connections

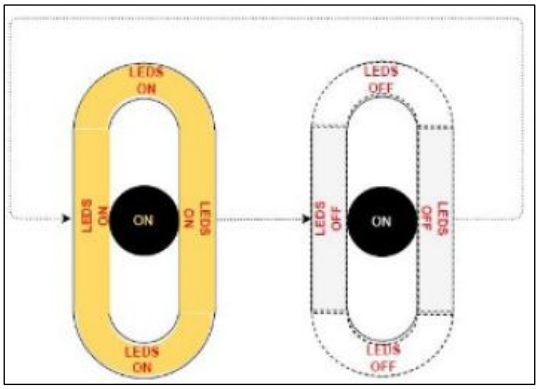
- Connect the machine to the mains and switch it on. Check that the pneumatic pipes are properly connected and do not leak air.

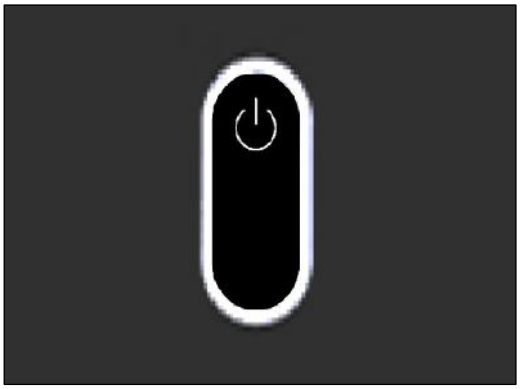




9 Initial conditions

- These are the conditions that must be met for the machine to be ready for use. When the machine is switched on, the four sectors of the oval should flash at the same time as the touch button and a general check will be carried out automatically.





IMPORTANT Only UL 110V 60Hz compressors.

Influence of voltage on compressor start-up:

Since this compressor operates at 110 V and 60 Hz, it is crucial that the voltage supplied is stable and within the specified range.

A voltage lower than the nominal value can cause poor start-up, increased current engine start-up and overheating.

On the other hand, higher voltage can damage electrical components and reduce the service life of the equipment.

Recommendations for optimal start-up:

1. Check the power supply: Make sure that the power source provides a stable voltage of 110 V at 60 Hz.

2. Avoid voltage drops: Use cables of the appropriate gauge and avoid using long extension cords or multiple plugs.

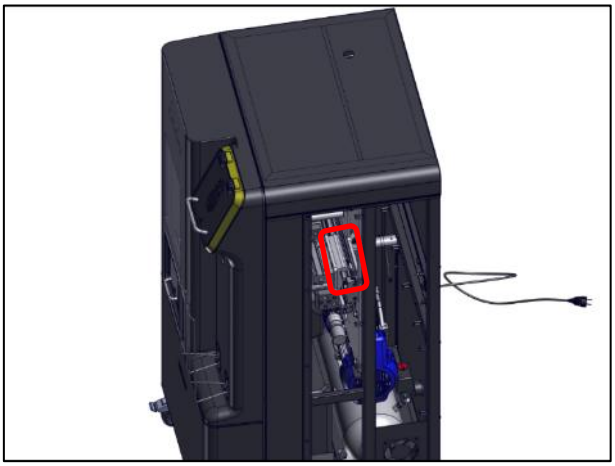
3. Regular maintenance: Follow the manufacturer's recommendations for preventive maintenance.

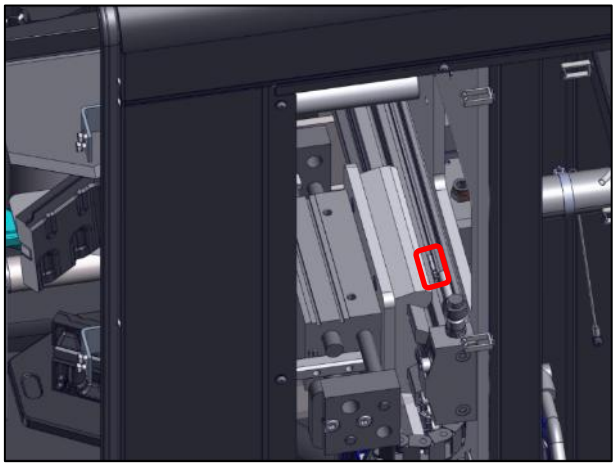
4. Suitable operating environment: Operate the compressor in an environment with temperatures between +5°C and +40°C and maximum relative humidity of 70%.

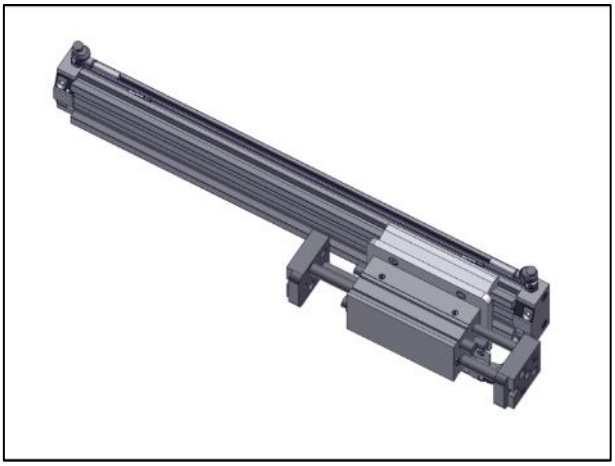
✓ **Correct pressure**

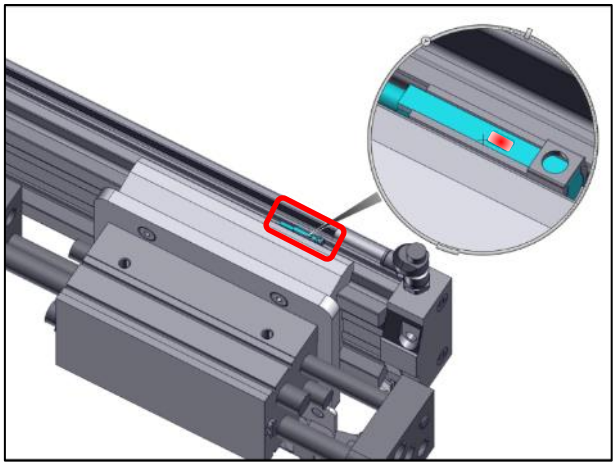
The correct pressure measured by the pressure sensor must be reached so that, once reached, all cylinders move to their initial position. The sensors that must light up when all cylinders are in their initial position are detailed below.

✓ **Linear cylinder sensor on the right side.**



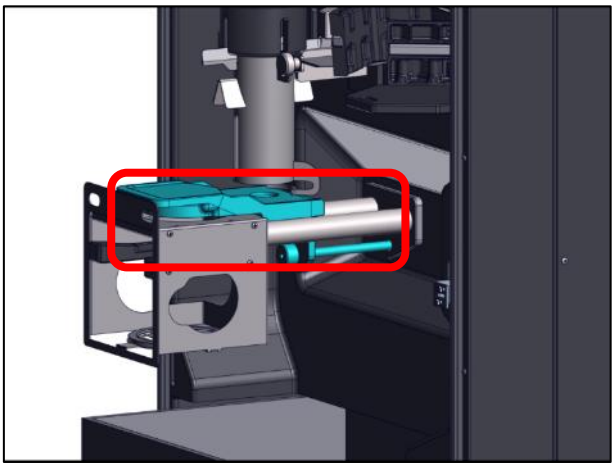


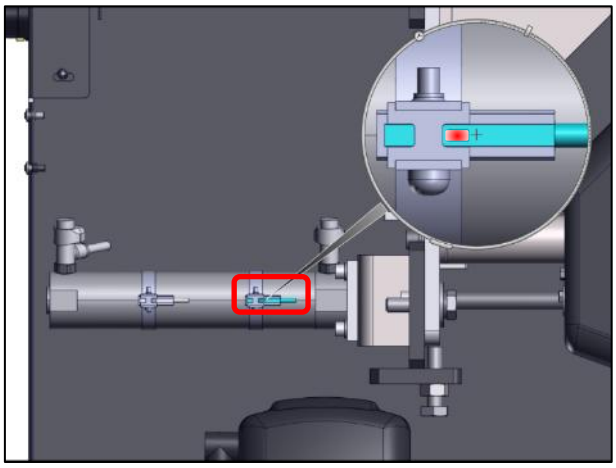




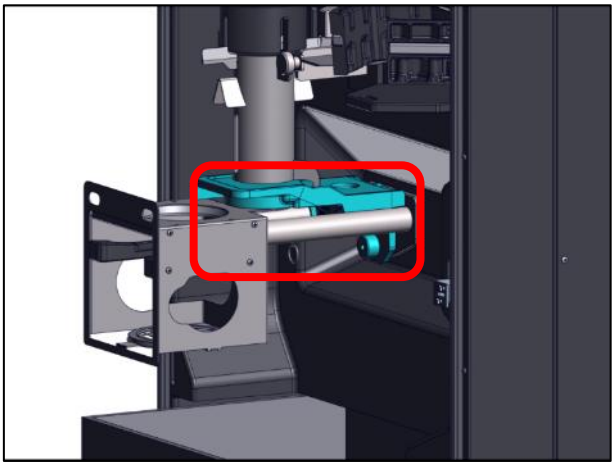
✓ Sensor for slices, sticks, chunks or block in position:

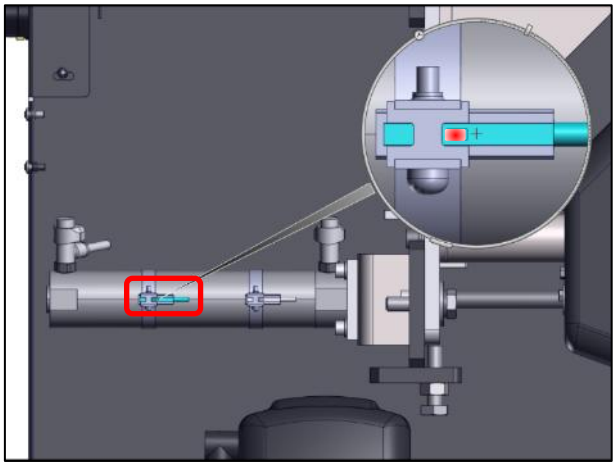
a. Extended *software version until December 2024





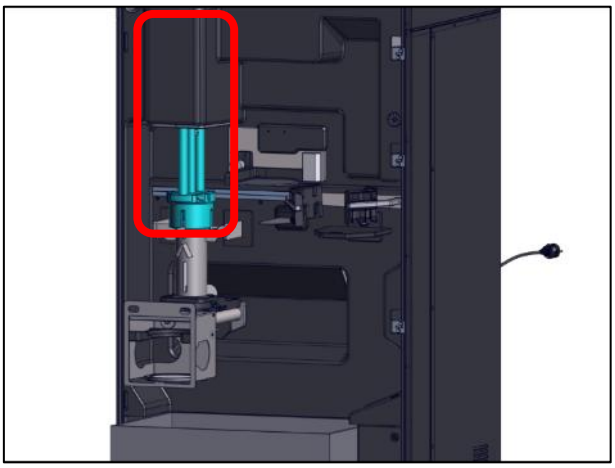
b. Retracted *software version from April 2025

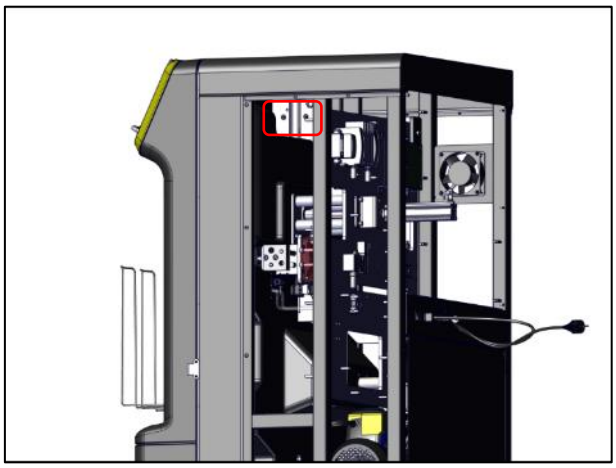


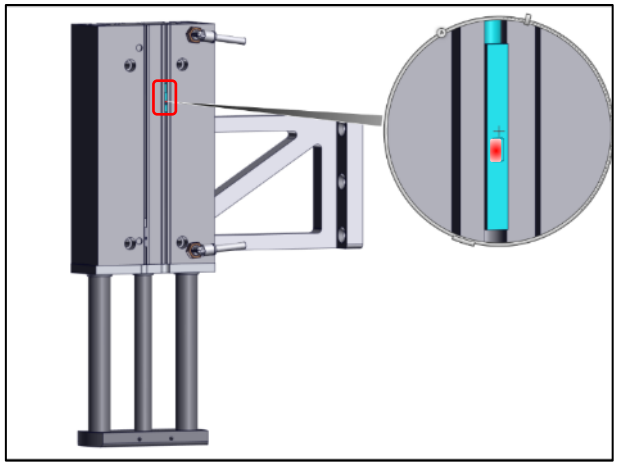


✓ **Vertical peeled cylinder sensor at the top**

The sensor must light up once the piston rises, but the piston will automatically fall by gravity when air stops passing through the main valve.

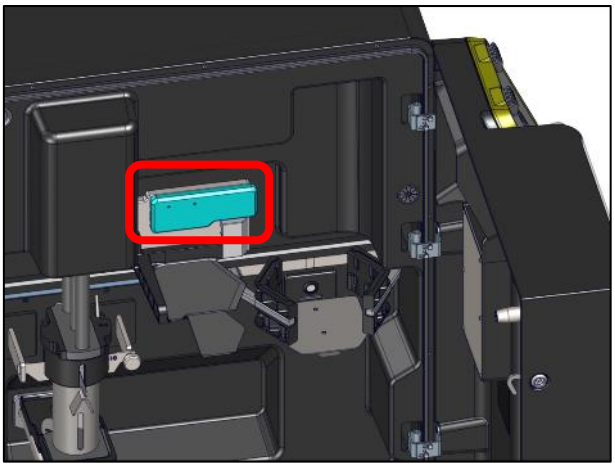


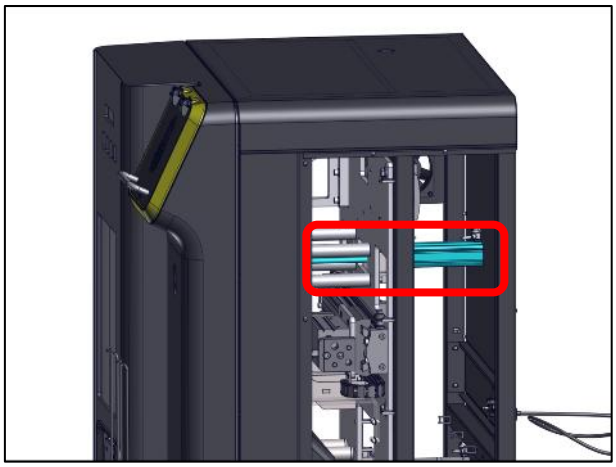


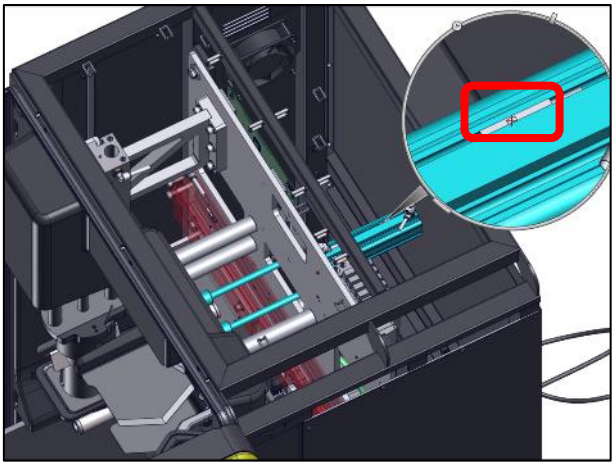


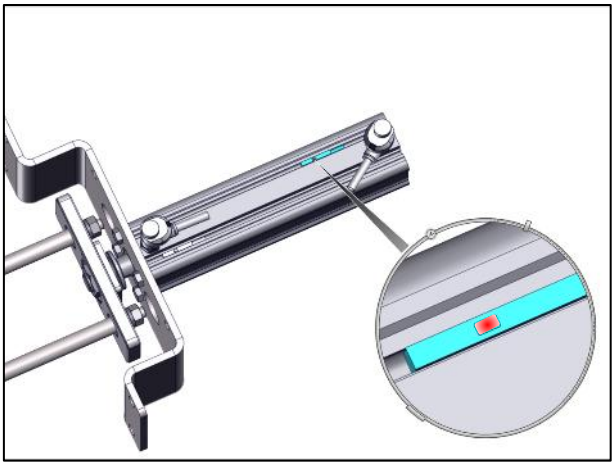
✓ **Cylinder sensor ejects ridges retracted**

The sensor must light up once the piston is retracted.









10 Fault location

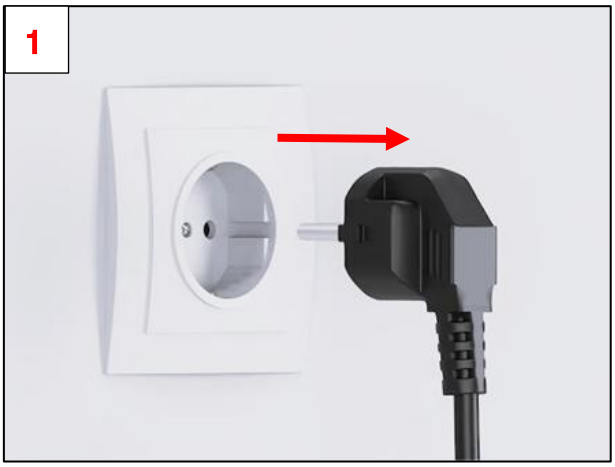
SST	NOTE: Check that the machine is disconnected from the switch and the mains and use gloves for handling.	

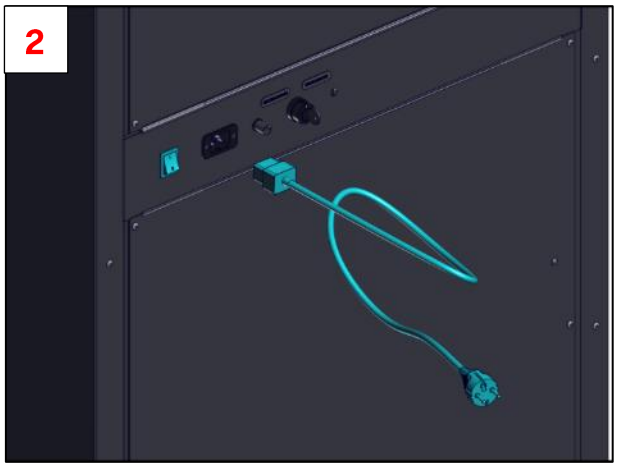
a. The machine does not start.

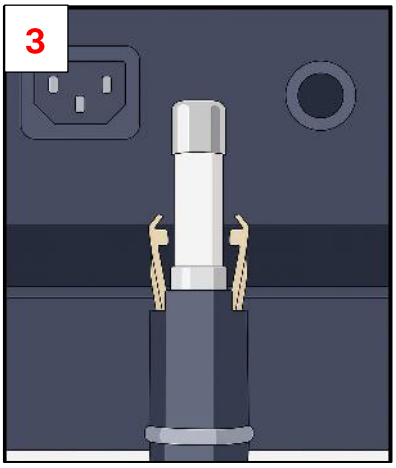
i. Check external electrical components.

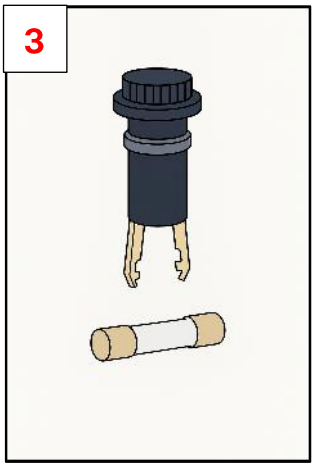
- Check the voltage at the power outlet where the machine is connected.
- Check the condition of the fuse.

1- Disconnect the machine from the mains.
2- Remove the power cord.
3- Press in and turn half a turn to remove the fuse holder. There will be a fuse that is being used by the machine. Check its condition by measuring continuity with a multimeter. Replace the damaged fuse with a new one.







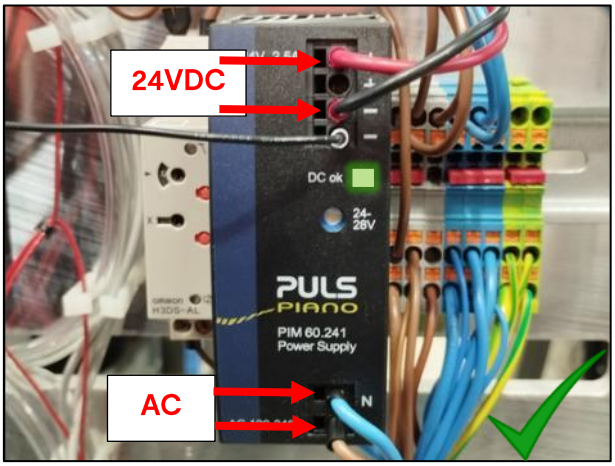


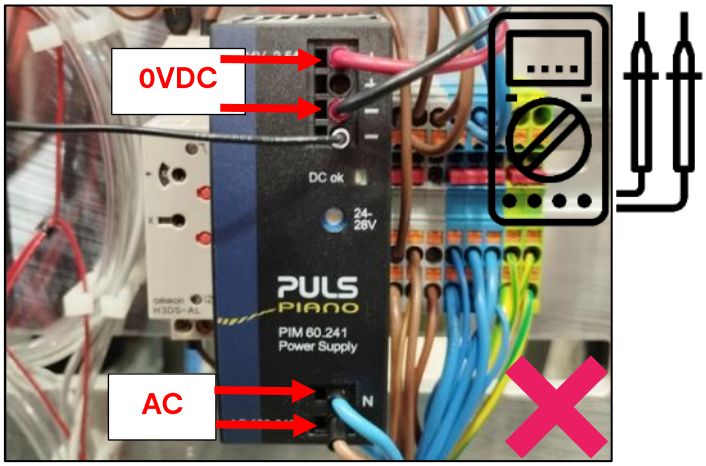
ii. Check internal electrical components.

NOTE: remove the rear cover of the machine to access the control area **(point 6)** and check the input and output voltages of the different components.

POWER SUPPLY

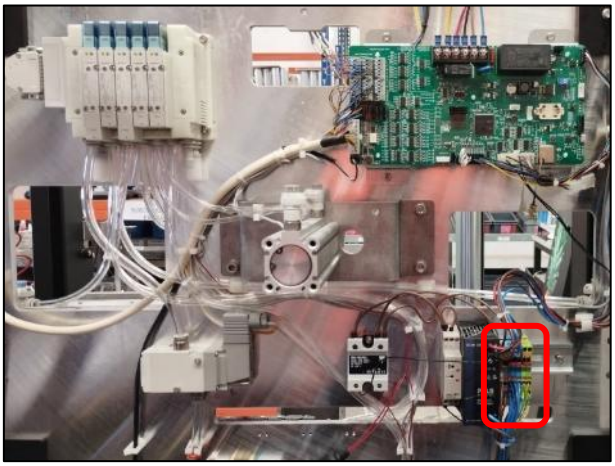
- Check whether the power supply is receiving voltage and supplying 24 Vdc. If not, replace it.

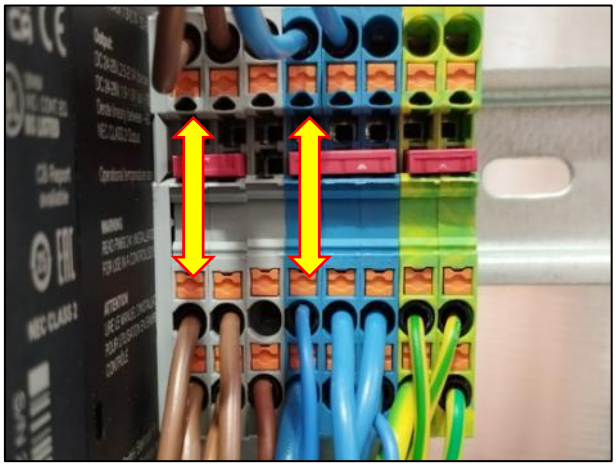




- Check voltage on input terminals.

1- Check **the AC voltage according to the country (220V, 240V or 110V)** with the multimeter on the input cables on the input strip. See electrical diagram (**point 13**).

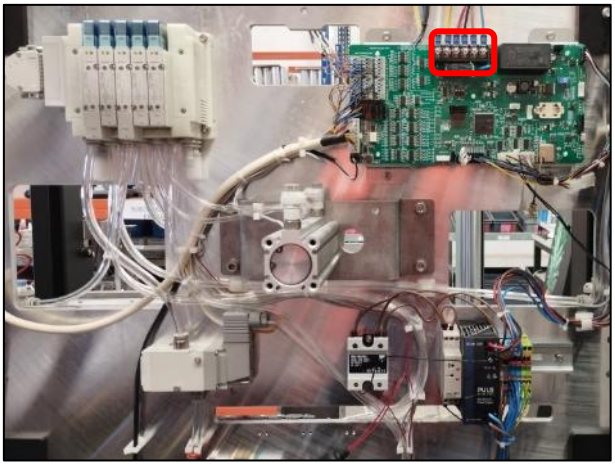


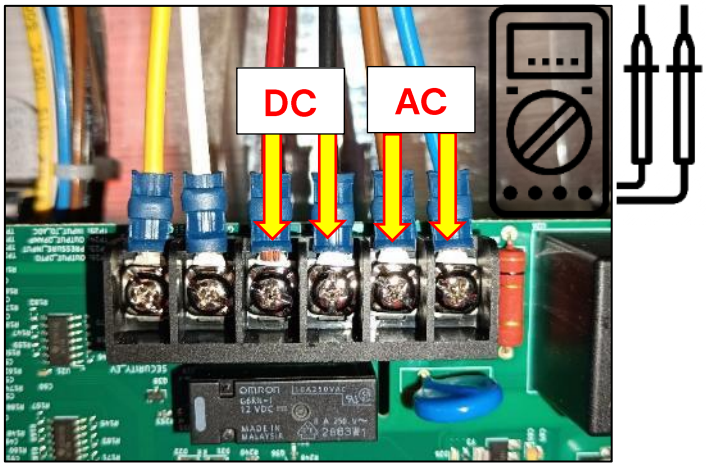


PCB CONTROL

1. Check the voltage at the input and output terminals of the control board.

2. Check **the AC voltage according to the country (220V, 240V or 110V)** with the multimeter on the input cables and **the DC voltage (24V)** on the input terminals. See electrical diagram (**point 13**).





If the board is receiving the correct voltage **(230V, 240V or 110V depending on the model)** but not receiving 24V DC, check the power supply (**point 10.a.ii)**.

b. The compressor does not start

i. Check external electrical components.

- Check that no compressor start-up noise is heard and that no icons are lit on the display.

- Check if the compressor's circuit breaker is active by resetting the rear button.

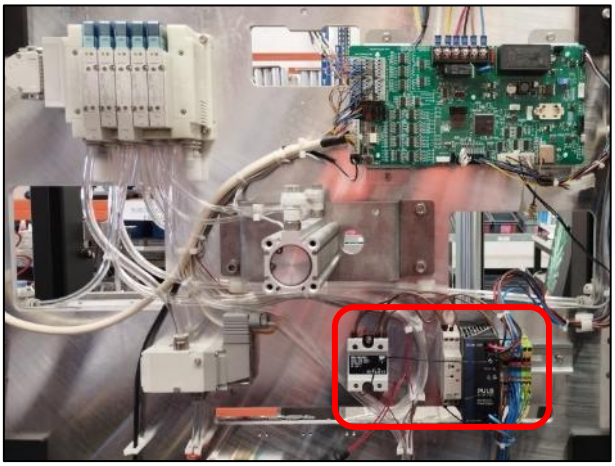
ii. Check internal electrical components.

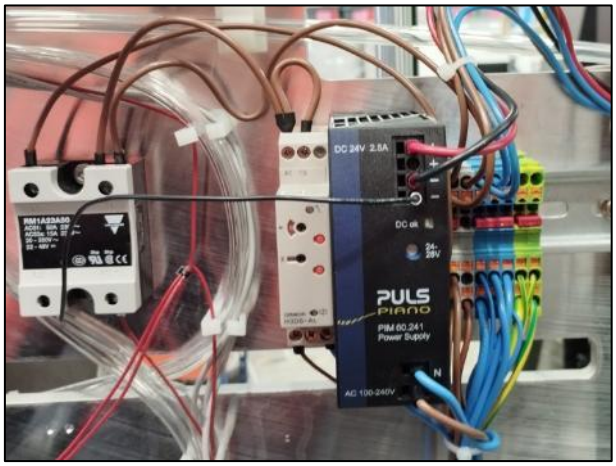
NOTE: remove the rear cover of the machine to access the Control PCB **(point 6)** and check the input and output voltages of the various components.

- Check the voltage at the relay and compressor

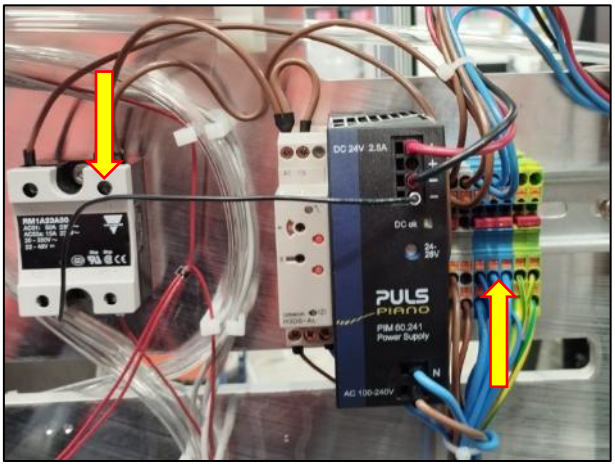
iii. For the 230V compressor

1- Check that the relay is active (green light) and that all doors are closed correctly. When active, it causes the contact between pins 11 and 14 to close and allow current to pass. This relay is activated by pressure switch no. 13 of the pneumatic components. See electrical diagram (**point 13**).

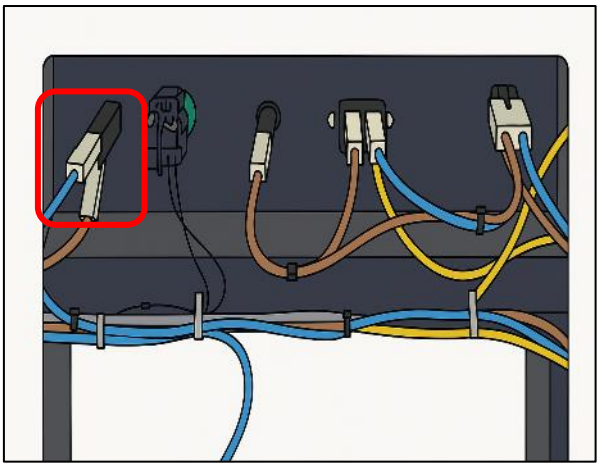


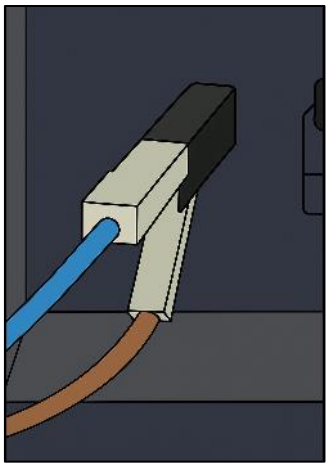


2- Check the voltage at the compressor. To do this, use a multimeter set to **AC voltage** to check the indicated pins. See electrical diagram (**point 13**).



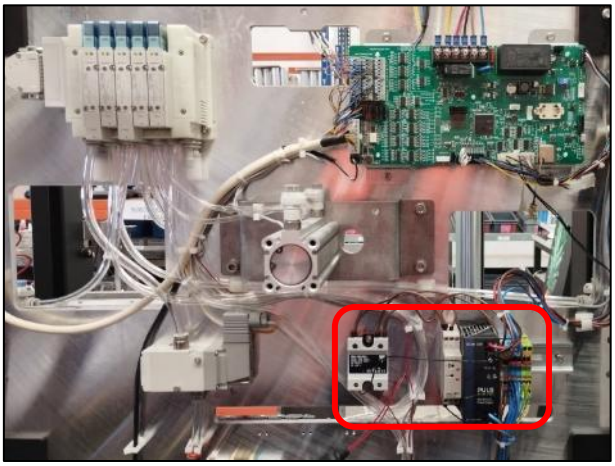
3- If the compressor is receiving power but still does not start, the circuit breaker should be bypassed to rule out a possible fault. If the compressor is faulty, replace it (**point 11.i or 11.j**).

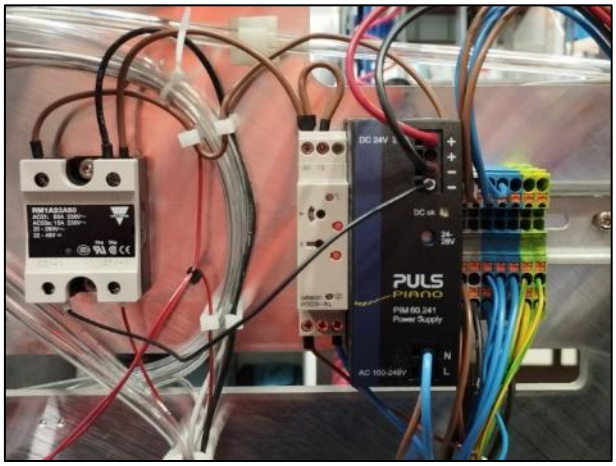




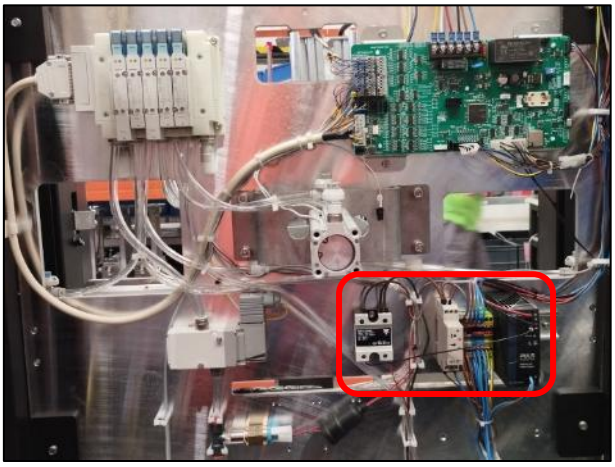
iv. For the 110V compressor

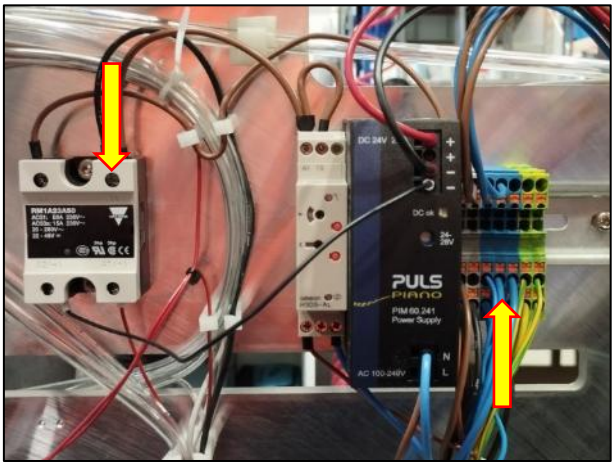
1- Check that the relay is active (green light) and that all doors are closed properly. When active, it causes the contact between pins 11 and 14 to close and allow current to pass. This relay is activated by pressure switch no. 13 of the pneumatic components. See electrical diagram (**point 13**).



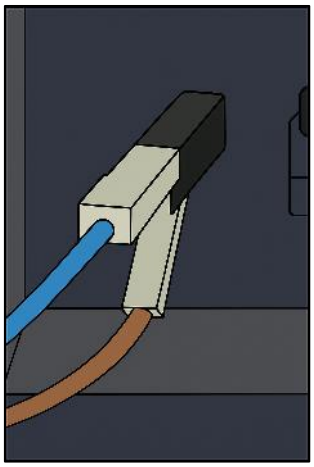


2- Check the voltage at the compressor. To do this, use a multimeter set to **AC voltage** to check the pins indicated. See electrical diagram (**point 13**).

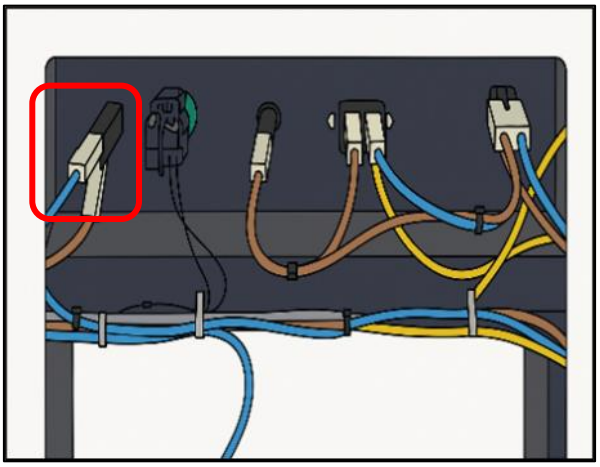


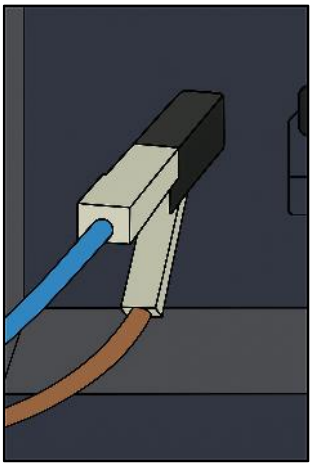


3- If the compressor still does not start, check that the temperature sensor inside the compressor is working correctly. To do this, disconnect cables 3 and 4 and measure continuity between them.



4- If the compressor receives power but still does not start, the circuit breaker should be bypassed to rule out a possible fault. If the compressor is faulty, replace it (**point 11.i or 11.j**).



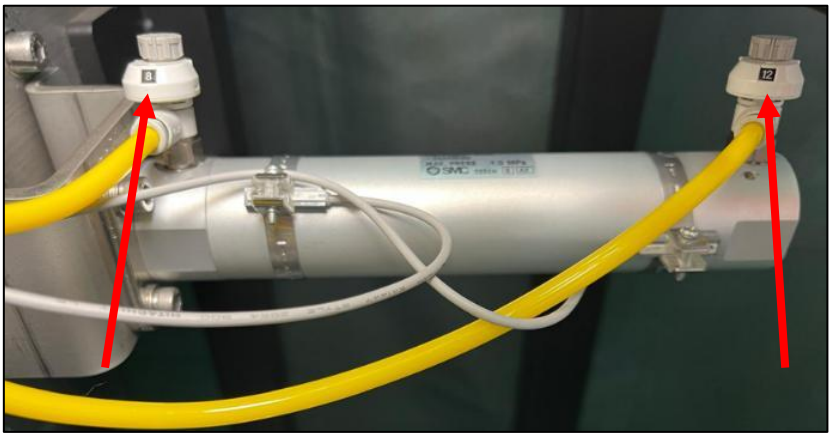


c. The cut pineapple does not fall correctly into the container

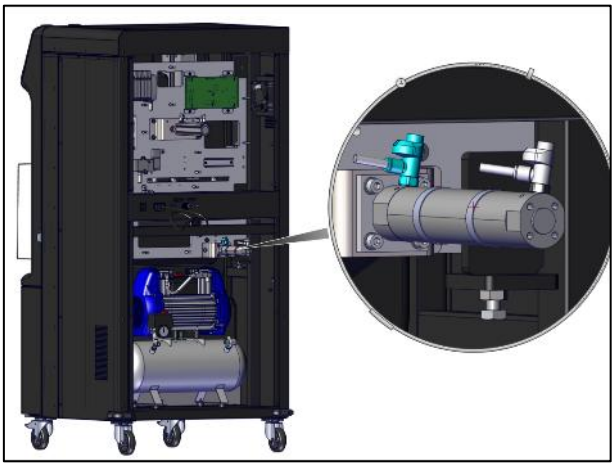
- **Slicing mode:** check that the blades are correctly positioned and that the pineapple is the right size for the blade configuration. If pieces of peel remain when the pineapple is peeled, the slices will not fall properly into the container

- **Stick mode:** check that the blades are correctly positioned and that the pineapple size is appropriate for the blade configuration. If pieces of rind remain when peeling the pineapple, the slices will not fall correctly into the container. Check the speed setting of the slice cylinder or stick pusher.

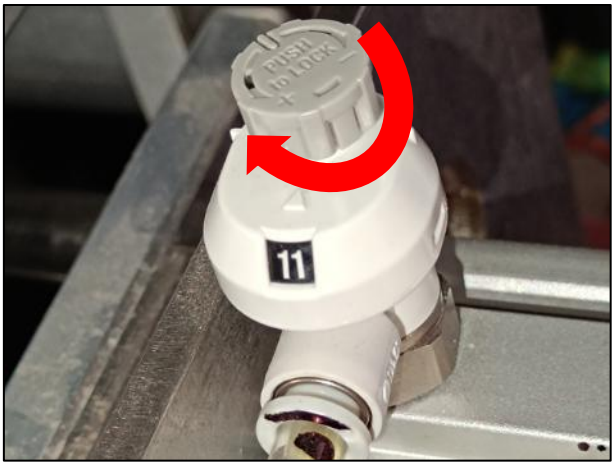
- Check the speed of the slicing cylinder. The factory settings on the regulators should be as follows (8 at the outlet and 12 at the return).

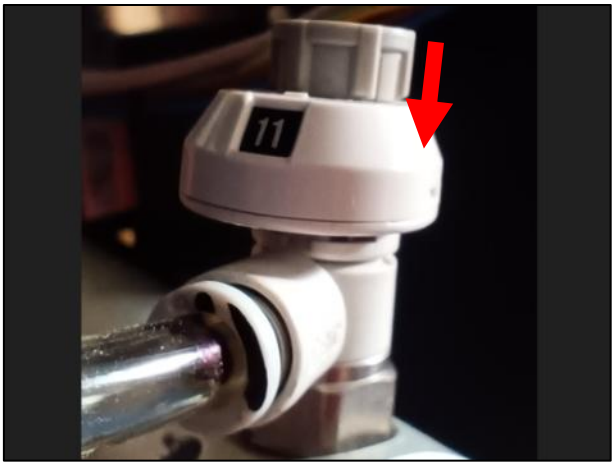


1- If you need to increase or decrease the speed, only adjust the regulator marked in blue in the image. Where 12 means completely open and more speed.

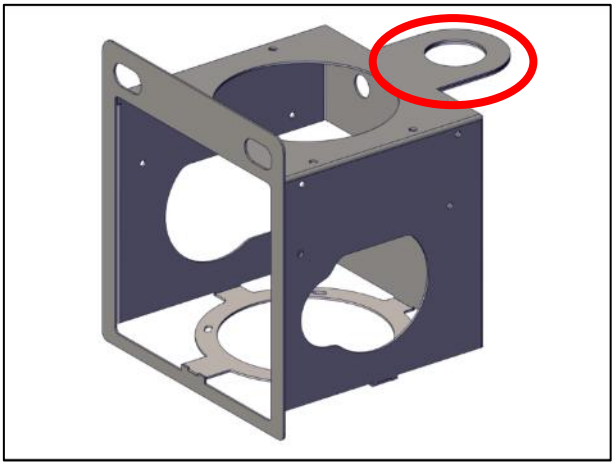


2- To do this, pull up on the grey part, turn until the correct setting is selected and then push the grey part back down to lock it.

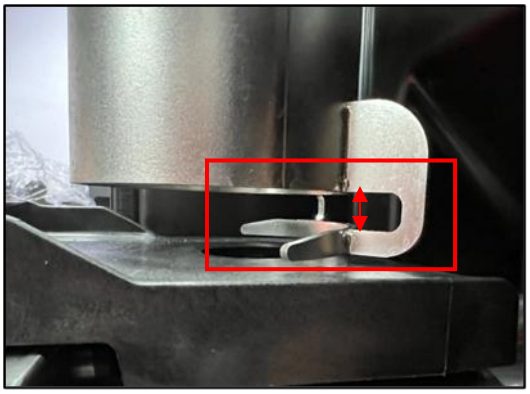




- Check that the protruding part of the metal drawer where the can is inserted is not bent, and that when sliding the blade of the blades, it does not hit it. This would cause the blade cylinder to lock constantly or not work properly. To fix this, simply straighten the bent part by hand or request a new metal drawer.

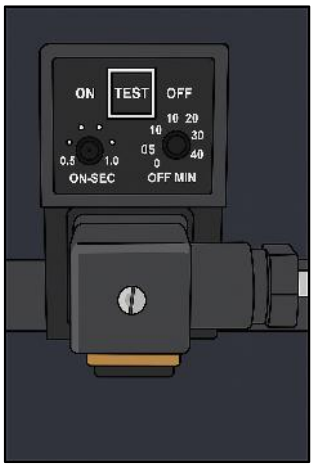


- Check that the bottom of the blade is not bent, as it could hit the blade. This would cause it to jam and/or not slide properly. This would affect cutting in slice and chunk mode.



d. The machine constantly expels air

- Check that the compressor discharge valve has not been left open and that air is not escaping through the discharge hole into the waste container.

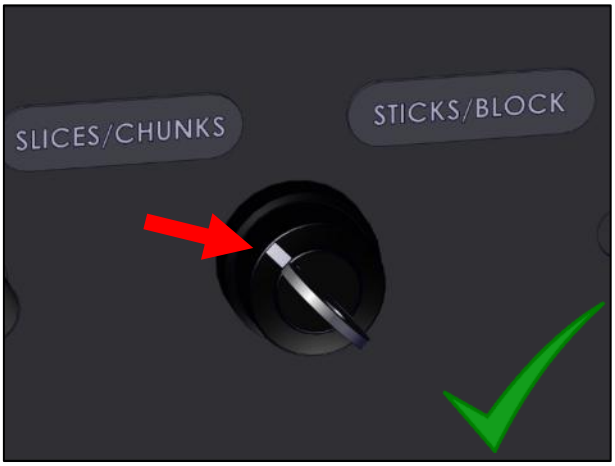


1- You can close the shut-off valve until the machine has filled with air and then open it again.

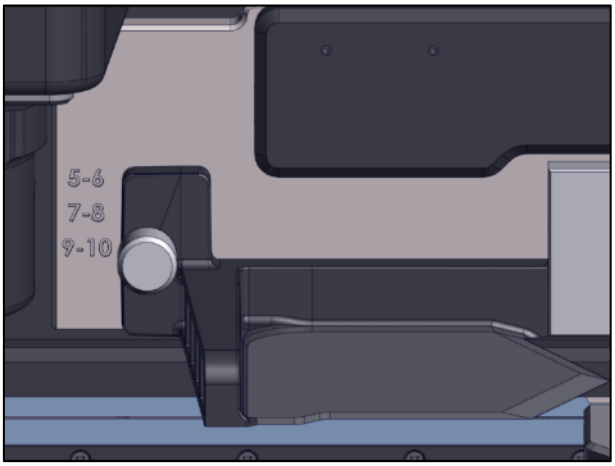
2- Check by pressing "test" to see if the problem has been solved. If not, proceed with replacing it (**point 11.j.**).

e. The machine only slices once, or the pineapple block remains on the circular blade

- If the machine only makes one slice and then stops, check that the selector is set to "slices/chunks" and not "sticks/block", because in this position the slicing cylinder will only make one movement, and the pineapple block will remain stuck in the circular blade.



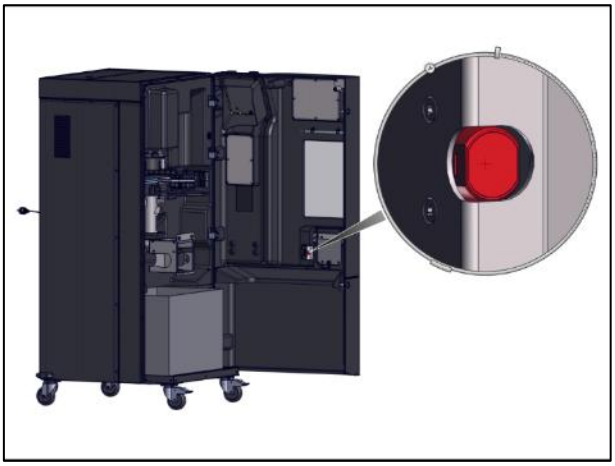
- Check the height of the pineapple and the position of the blade that cuts the crest. If, when peeling the pineapple, there are pieces of skin left on the top, the pineapple will not slide correctly through the blade.



Fruit size	Optimal fruit height	It is advisable to place the pineapple supplement when the fruit height is
CALIBRE 5-6 (Ø FROM 135 mm)	From 165 mm	Between 155 and 165 mm
SIZE 7-8 (Ø between 110 and 135 mm)	From 150 mm	Between 140 and 150 mm
CALIBRE 9-10 (Ø up to 110 mm)	From 135 mm	Between 125 and 135 mm

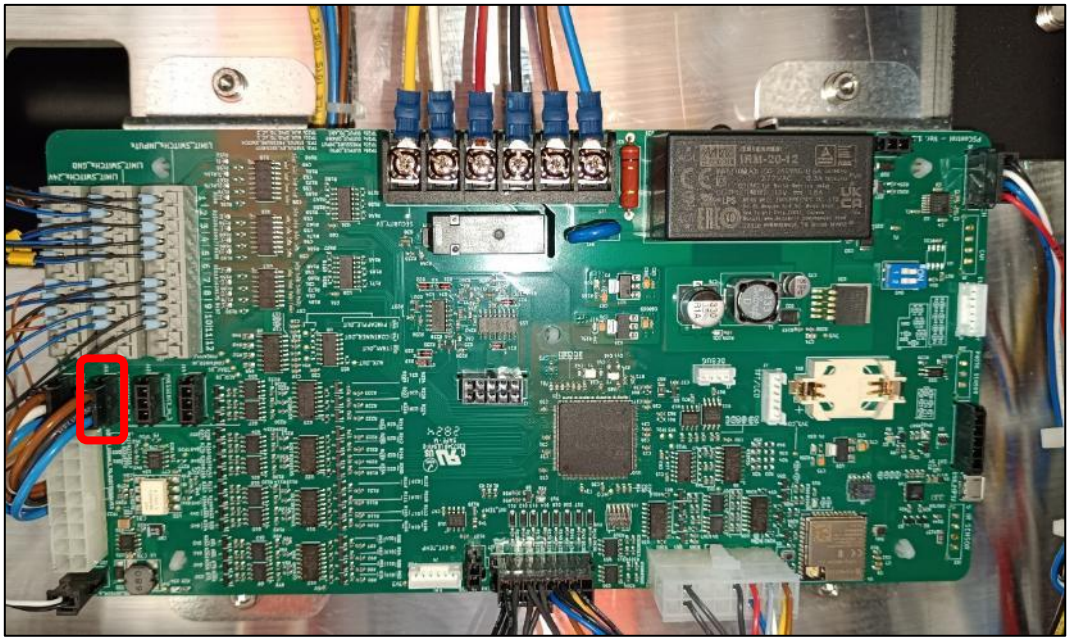
f. The machine does not detect that the can has been inserted or detects that there is always a can

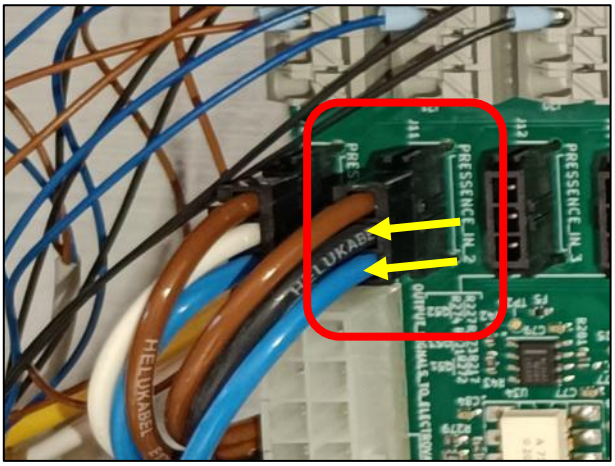
- Check that the sensor that detects the can is completely clean and that the optical part is not scratched. If it is dirty, clean it very carefully and do not use an abrasive cloth that could damage the red glass.



NOTE: Check that the sensor is correctly adjusted.

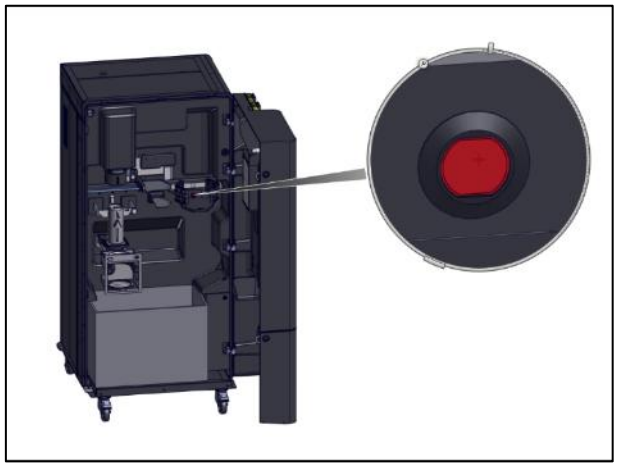
- If it still does not detect, to check the sensor, with the machine turned on and a can inserted, use a multimeter to check that **24 Vdc** is received at pins 2 and 3 of the connector (point 10). And that when the can is removed, **0 Vdc** is received. If no signal is received, replace the sensor.



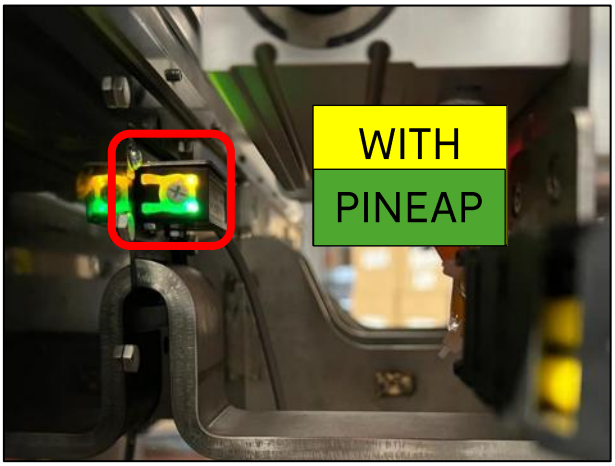


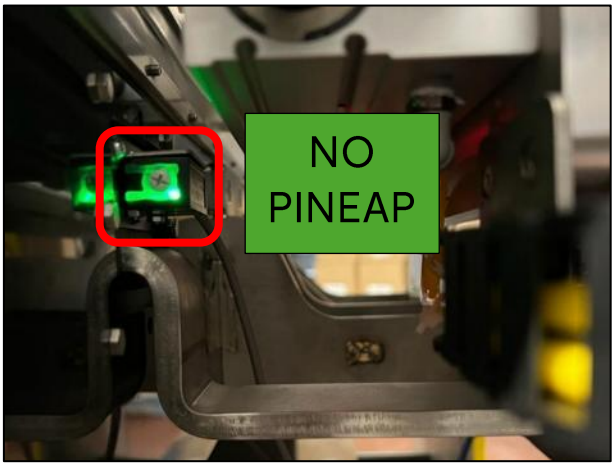
g. The machine does not detect that pineapple has been inserted or detects it constantly

- Check that the sensor that detects the pineapple is completely clean and that the optical part is not scratched. If it is dirty, clean it very carefully and do not use an abrasive cloth that could damage the red glass.

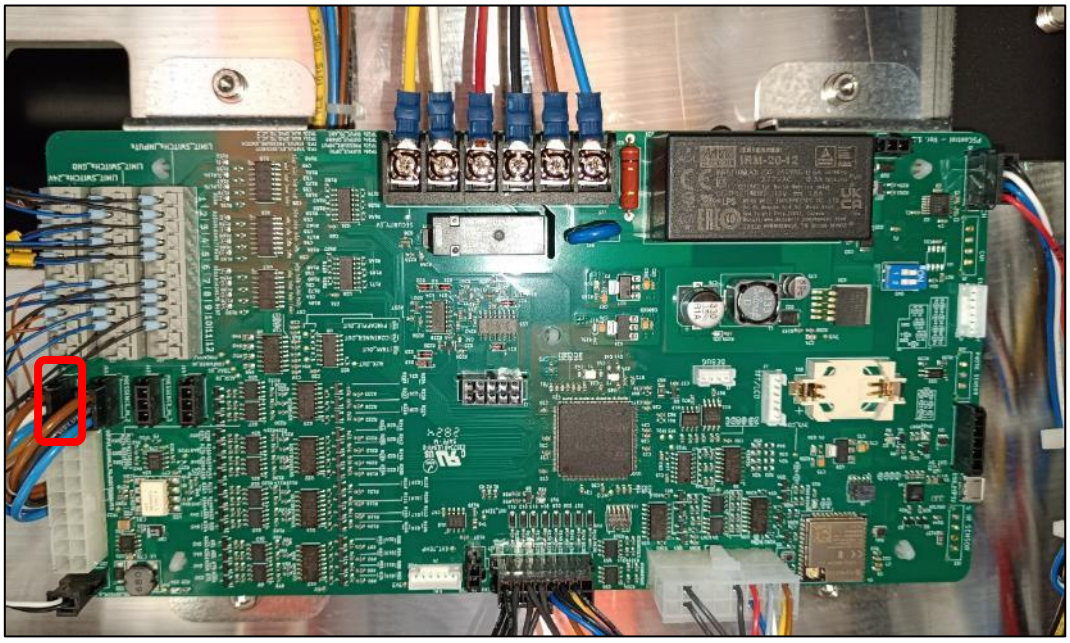


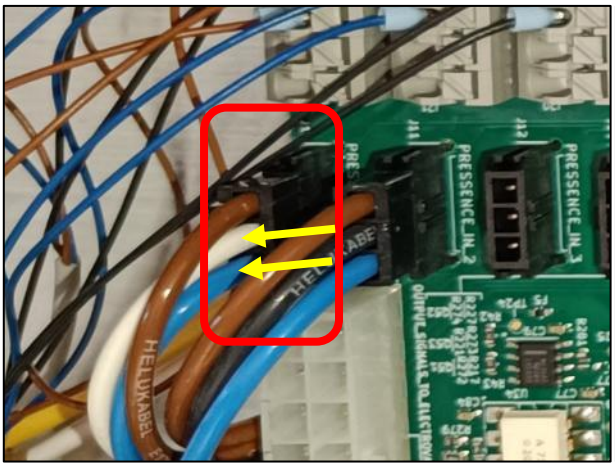
- Check that the orange light on the sensor comes on when the pineapple is inserted.





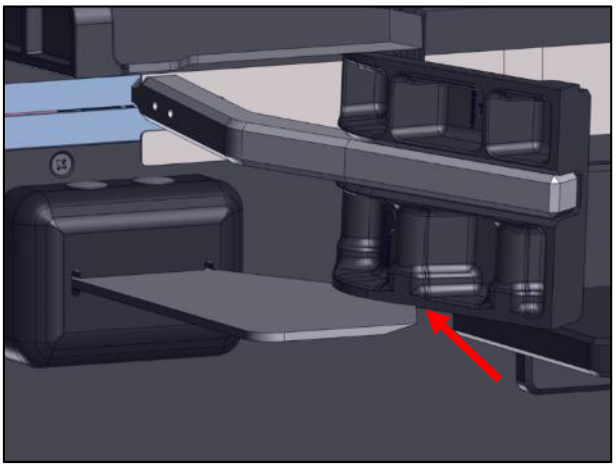
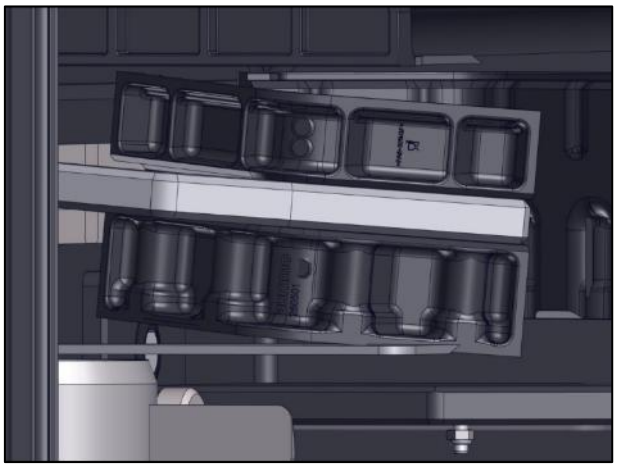
- If it is still not detected, to check the sensor, with the machine turned on and a pineapple inserted, use a multimeter to check that **24 Vdc** is being received at pins 2 and 3 of the connector (point 10). And that when the container is removed, **0 Vdc** is received. If no signal is received, replace the sensor.



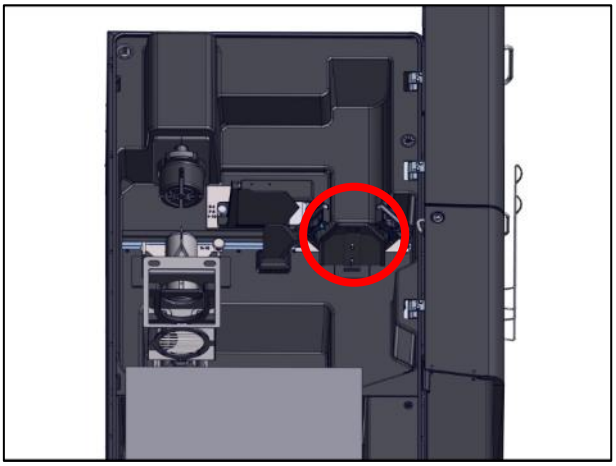
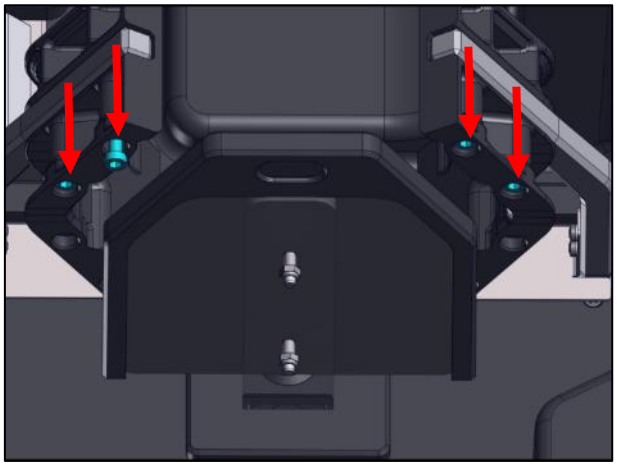


h. The clamps hit the blade

- Over time and depending on the number of uses, the clamps that hold the pineapple may become misaligned.

- Check that the claw screws are tight. If this does not achieve a proper fit, check the internal adjustment of the clamp (**point 11.b.**).

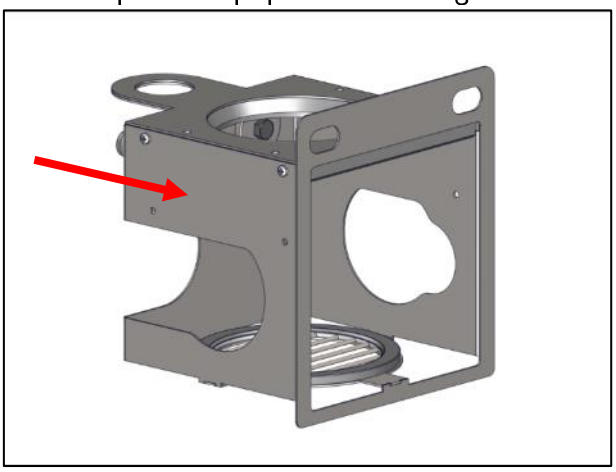
11 Part replacement

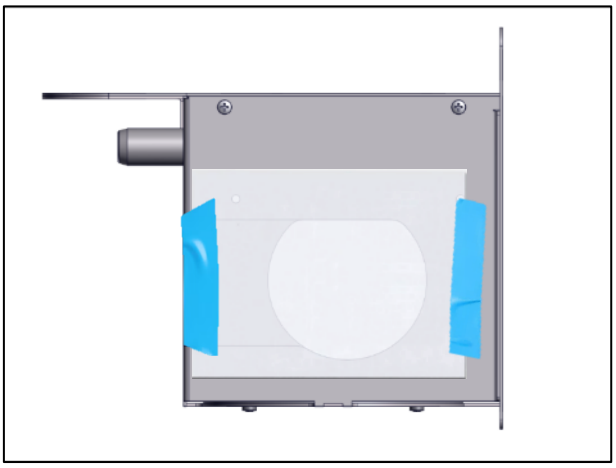
SST

NOTE: Check that the machine is disconnected from the switch and the mains and use gloves for handling

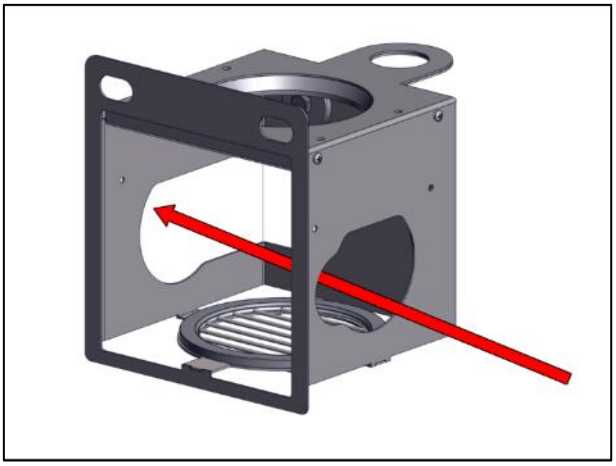
a. Adjust the can detection sensor

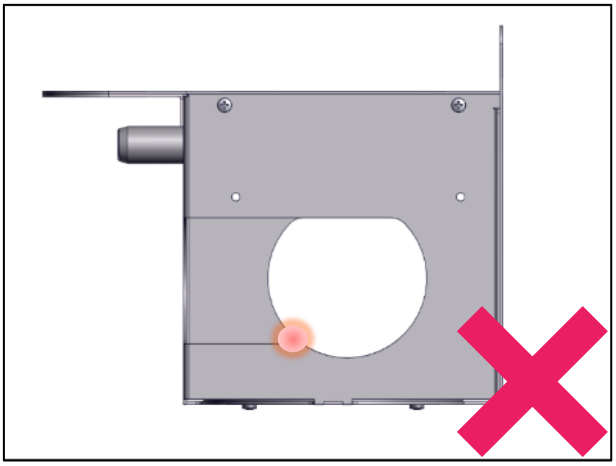
- Stick a piece of paper over the right-hand hole in the metal box where the can is inserted.

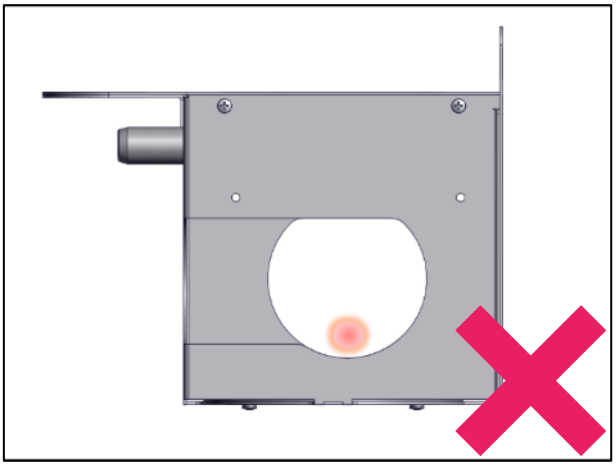


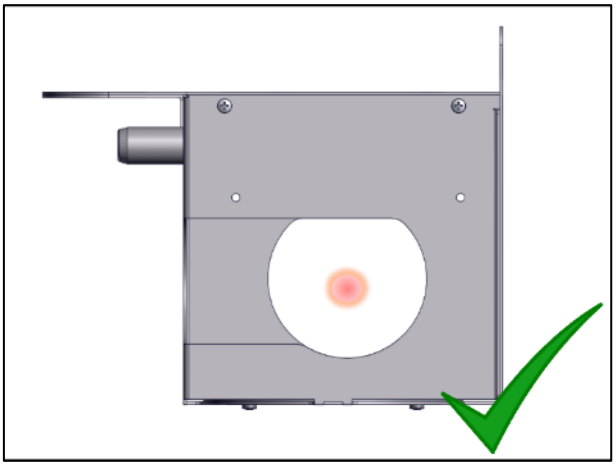


- Turn on the machine and observe where the light beam is shining. It should pass through the hole in the metal box.





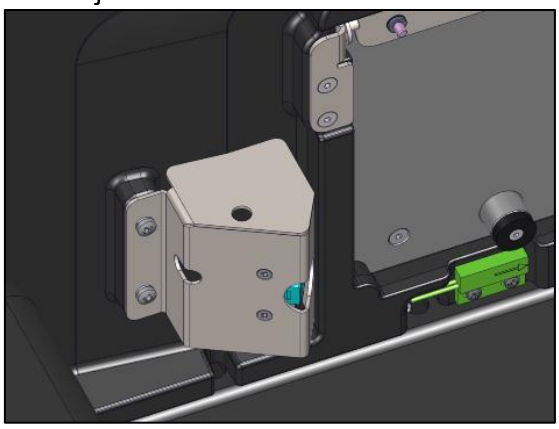


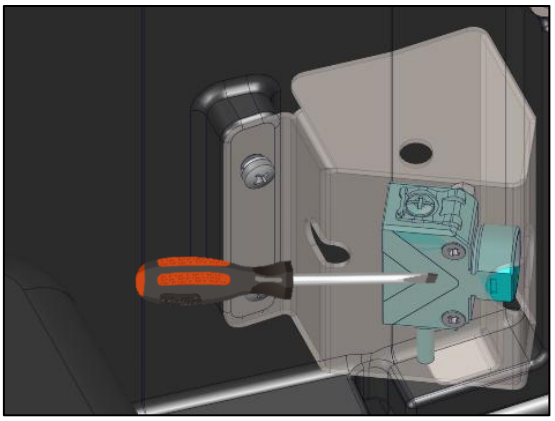


- Once you have adjusted the light beam so that it passes through the holes, remove the paper.

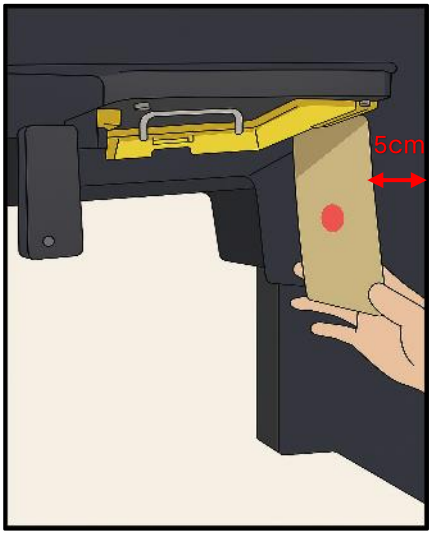
i. How to adjust the sensor

- The light beam must pass through the hole in the metal box. If adjustment is necessary, use the side hole to adjust the sensor.

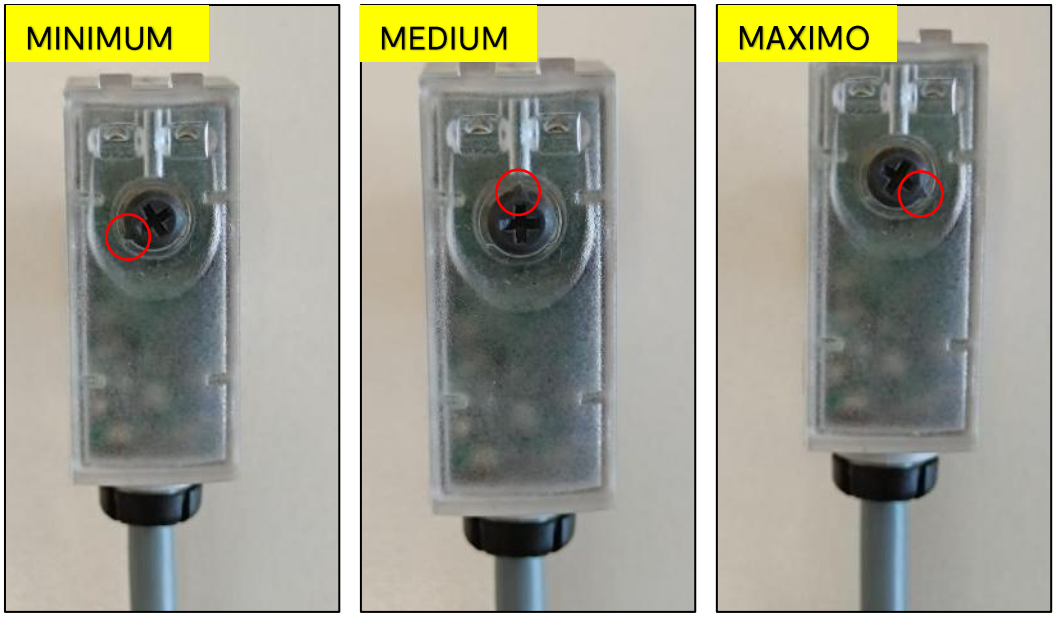




- Place a piece of cardboard or similar material approximately 5 cm from the edge of the door and adjust the sensor until the orange and green lights come on (indicating that the cardboard has been detected). Once this is done, check and turn the adjustment screw slightly in the opposite direction to ensure that the adjustment is correct.



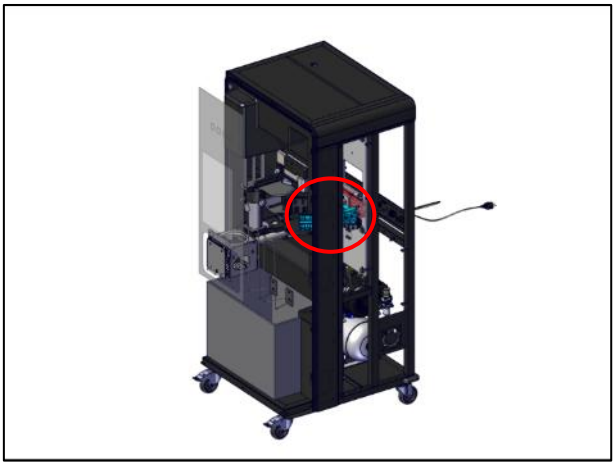
BEAM ADJUSTMENT

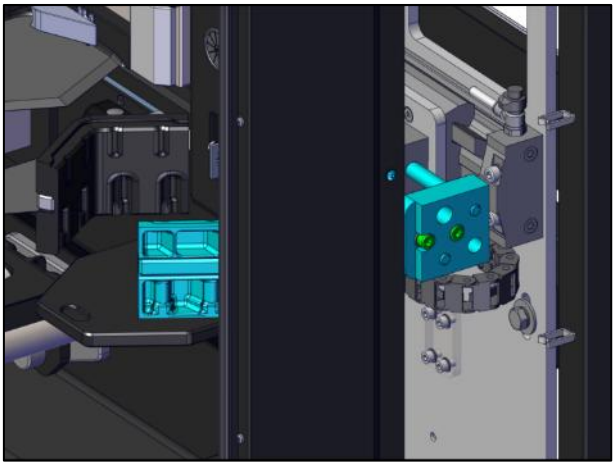


- Once the sensor is correctly adjusted, close the door and check that it detects a can correctly.

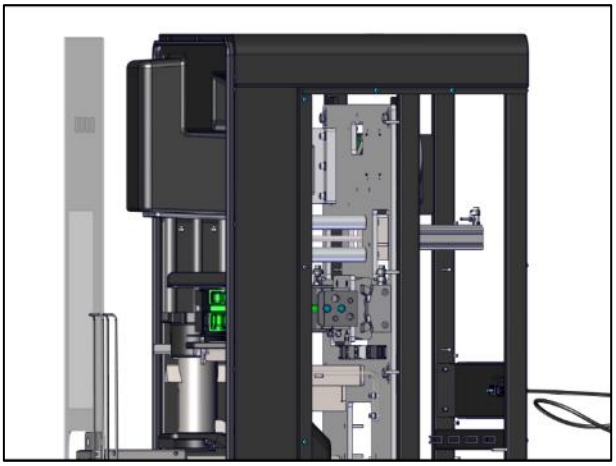
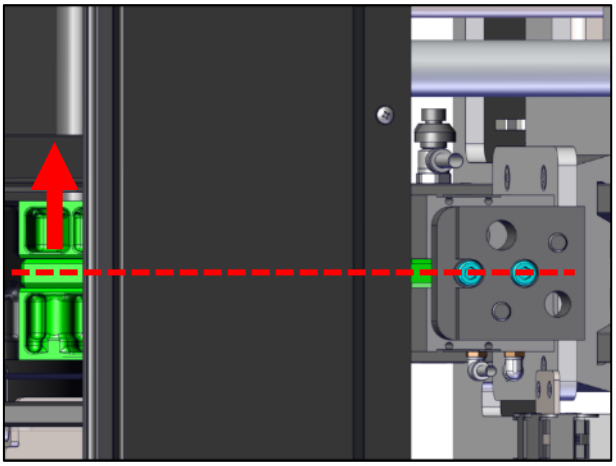
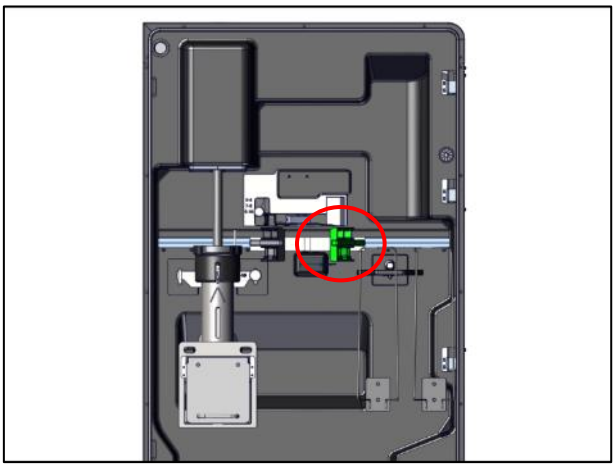
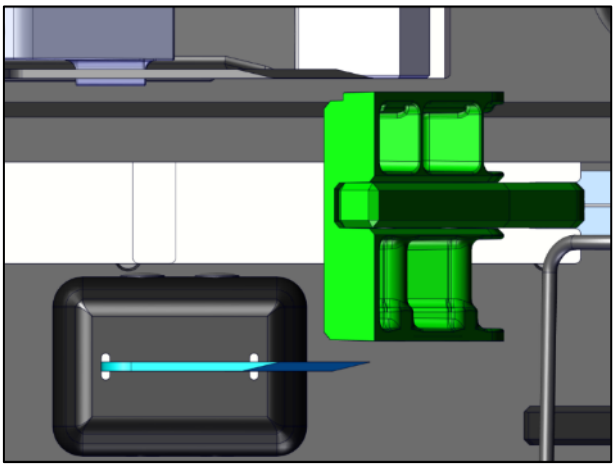
b. Clamp adjustment

- Disconnect the machine from the mains.
- Remove the rear and side covers (**point 6**).
- Loosen the screws that hold the clamp fingers in place. Start with the ones on one side first.

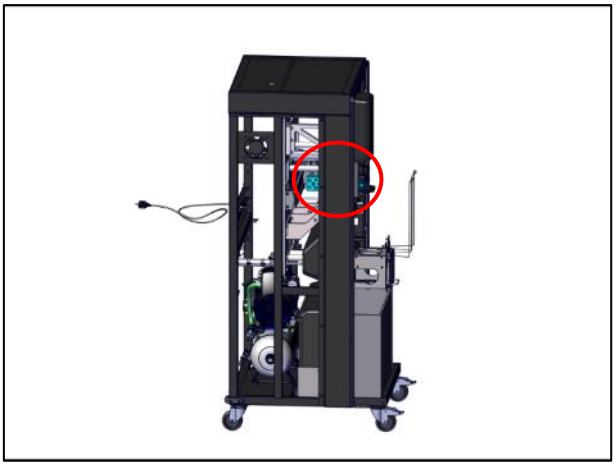
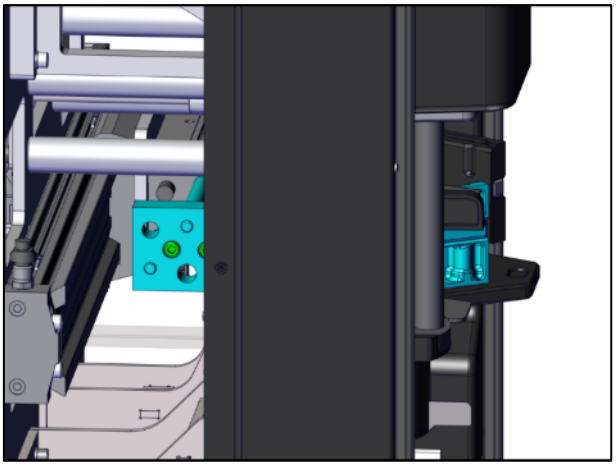




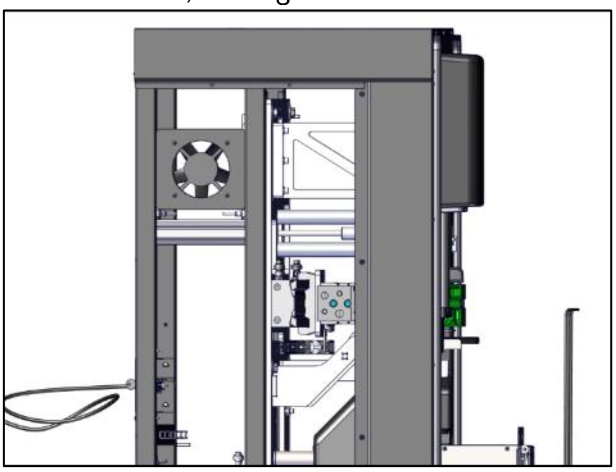
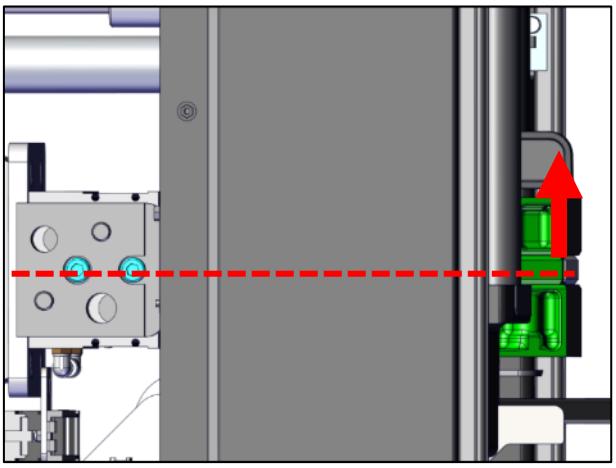
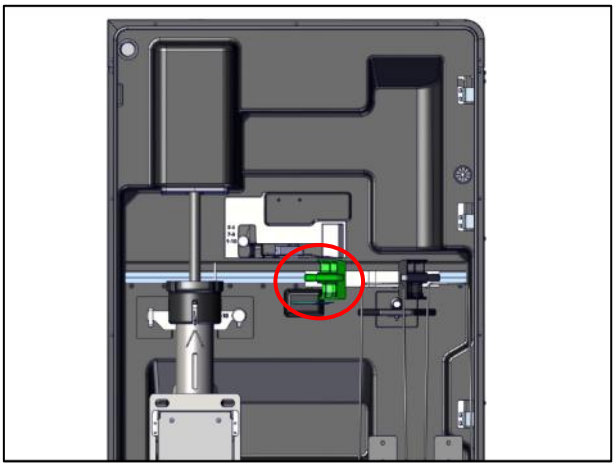
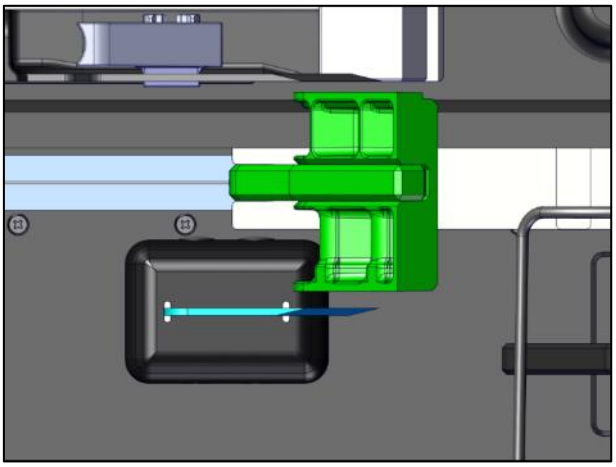
- Lift the fingers upwards, keeping them straight and parallel to the blade, checking that they do not hit the blade, and tighten the screws.

- Perform the same operation on the opposite side, accessing from the other side of the machine.
- Loosen the screws that hold the clamp fingers in place. Start with those on one side first.

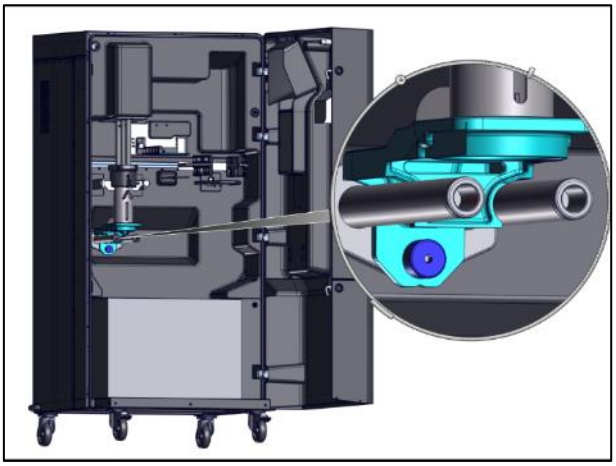



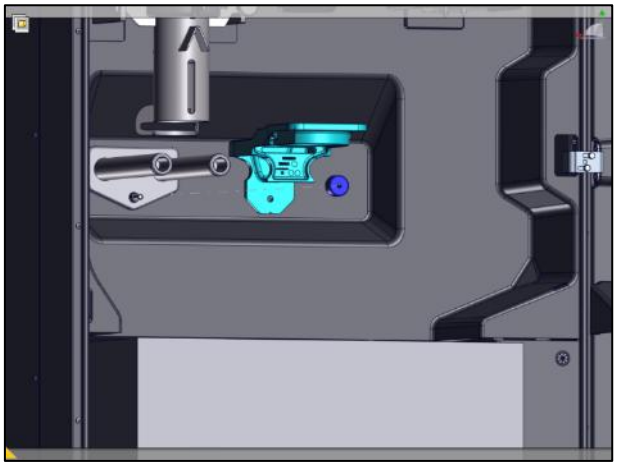
- Lift the fingers upwards, keeping them straight and parallel to the blade, checking that they do not hit the blade, and tighten the screws.

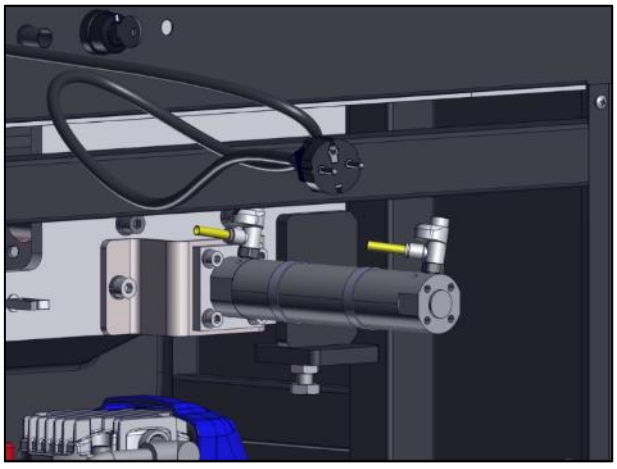
c. Replacing the cutting cylinder

- Disconnect the machine from the mains.
- Remove the nut from the blade and remove it.

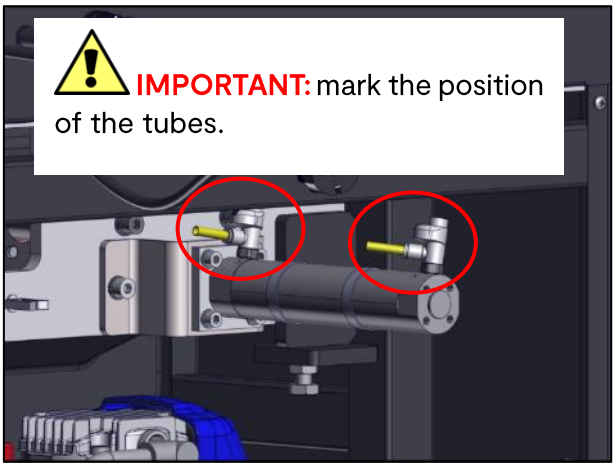


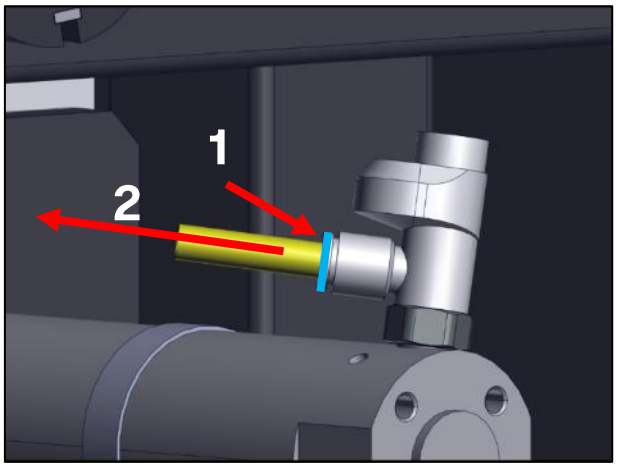


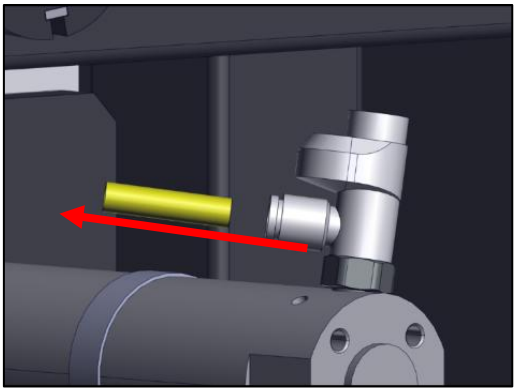
- Remove the lower rear cover (**point 6**).



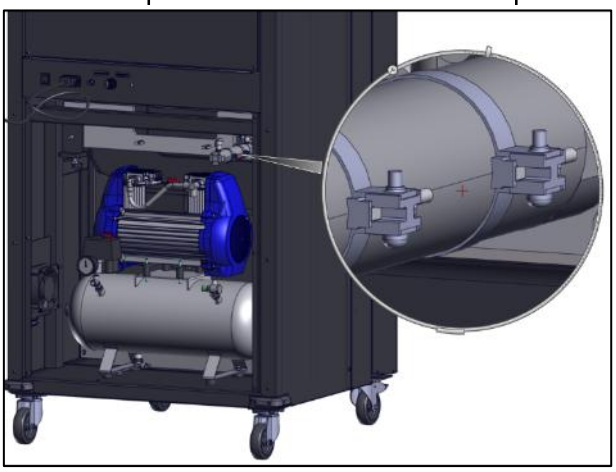
- Disconnect the pneumatic pipe by pressing the coupling connector inwards (1) and pulling the tube out (2).

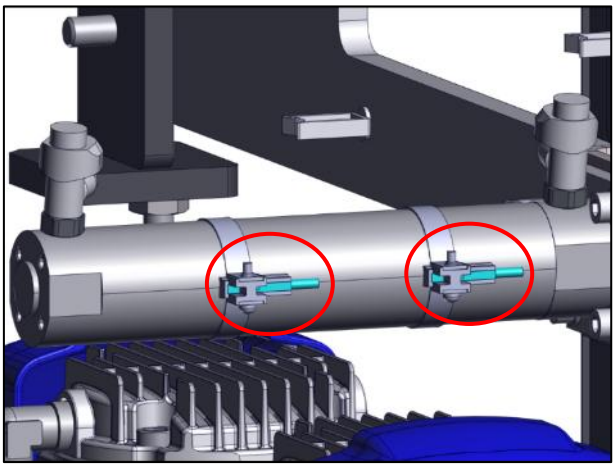


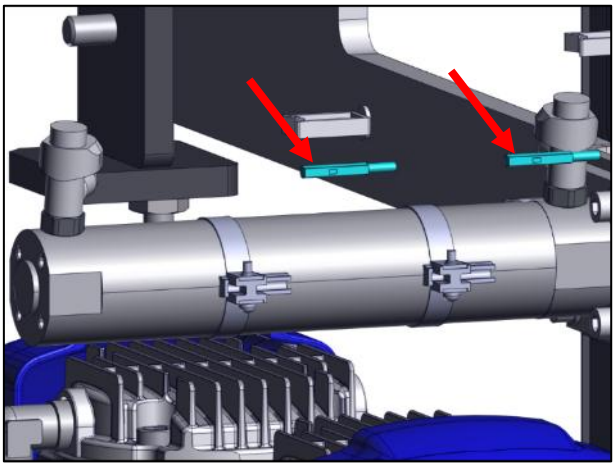




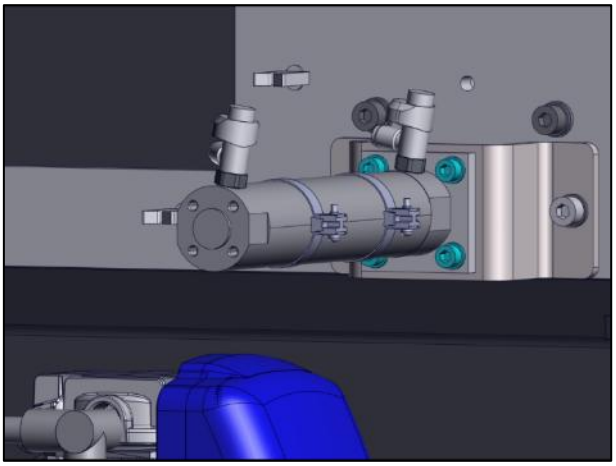
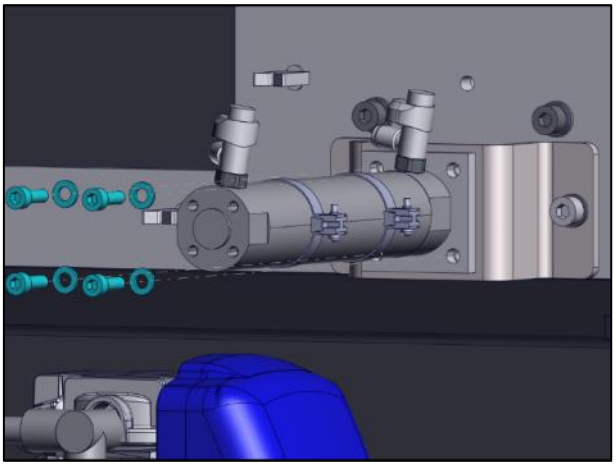
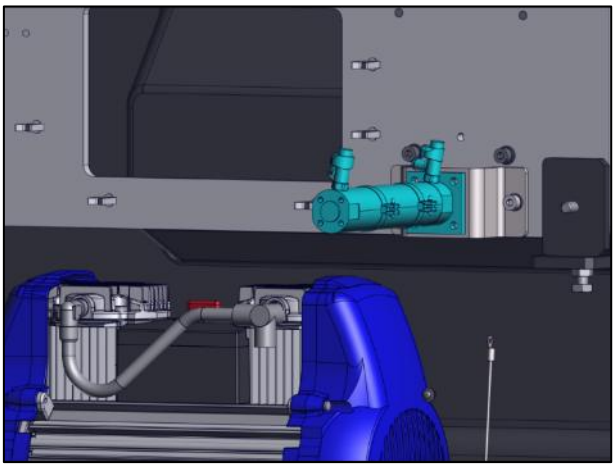
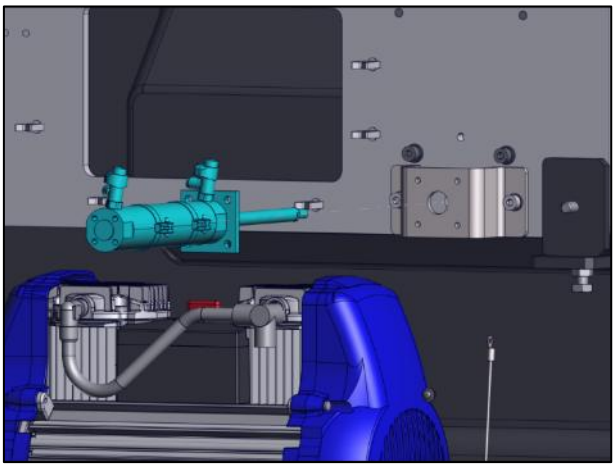
- Mark the position of the sensors and proceed to remove them.





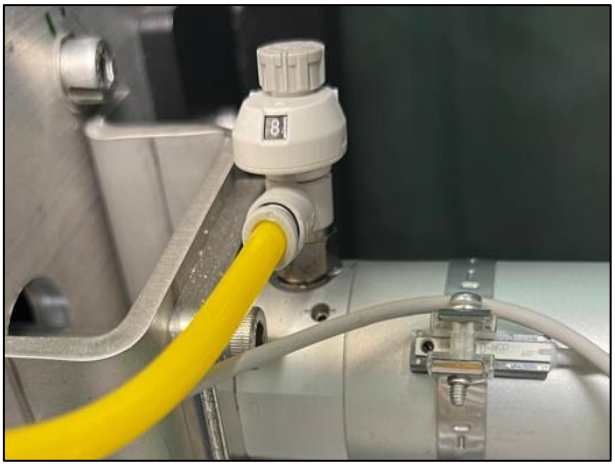


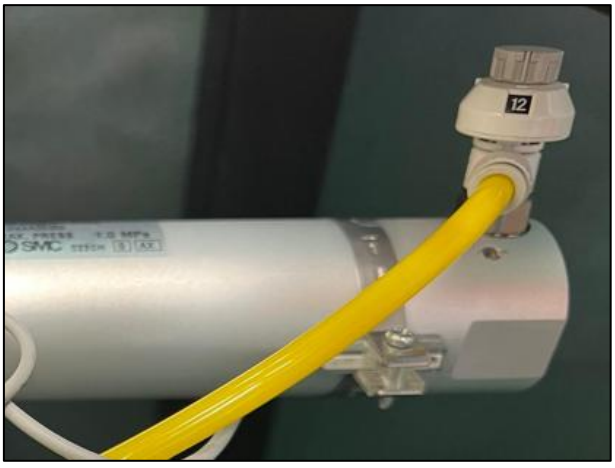
- Loosen the 4 screws that secure the cylinder to its support so that it can be removed.

- Once the cylinder has been removed, install the new one. Check that the sensors are working and detecting correctly.

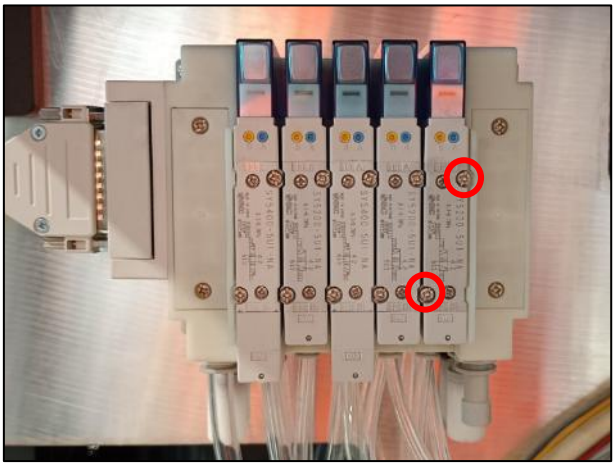
IMPORTANT: respect the flow numbering, the position of the pneumatic pipe and that of the sensors.



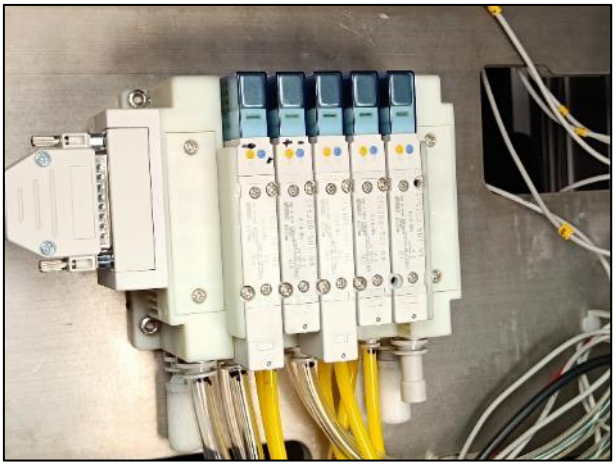
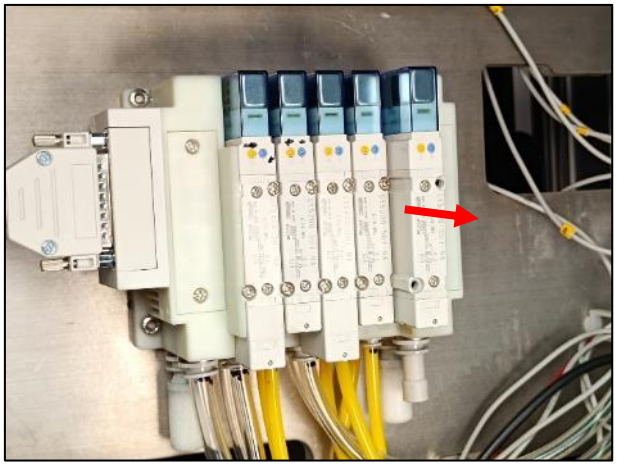
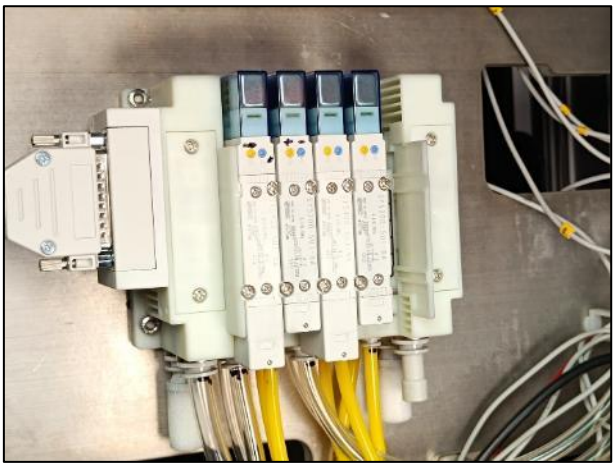
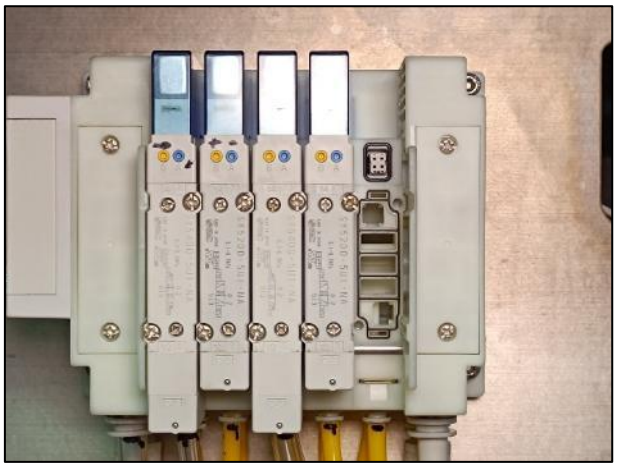


d. Replacing the solenoid valve on any cylinder

- Disconnect the machine from the mains.
- Remove the upper rear cover (**point 6**).
- Remove the screws holding the affected solenoid valve with a Phillips screwdriver.

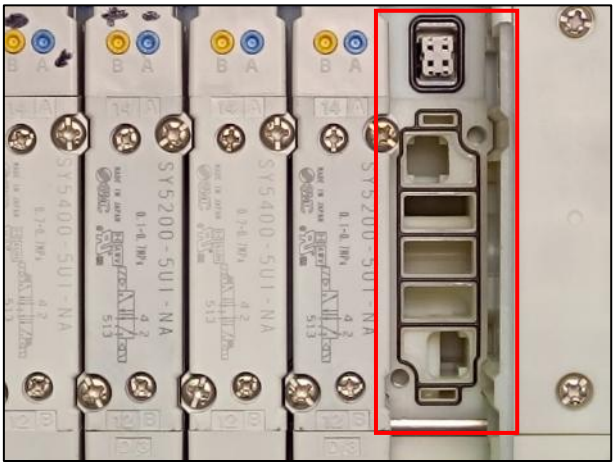



- Once both screws have been removed, remove the solenoid valve by pulling it outwards, taking great care not to drop the seal.

- Install the new solenoid valve by following the steps in reverse order.

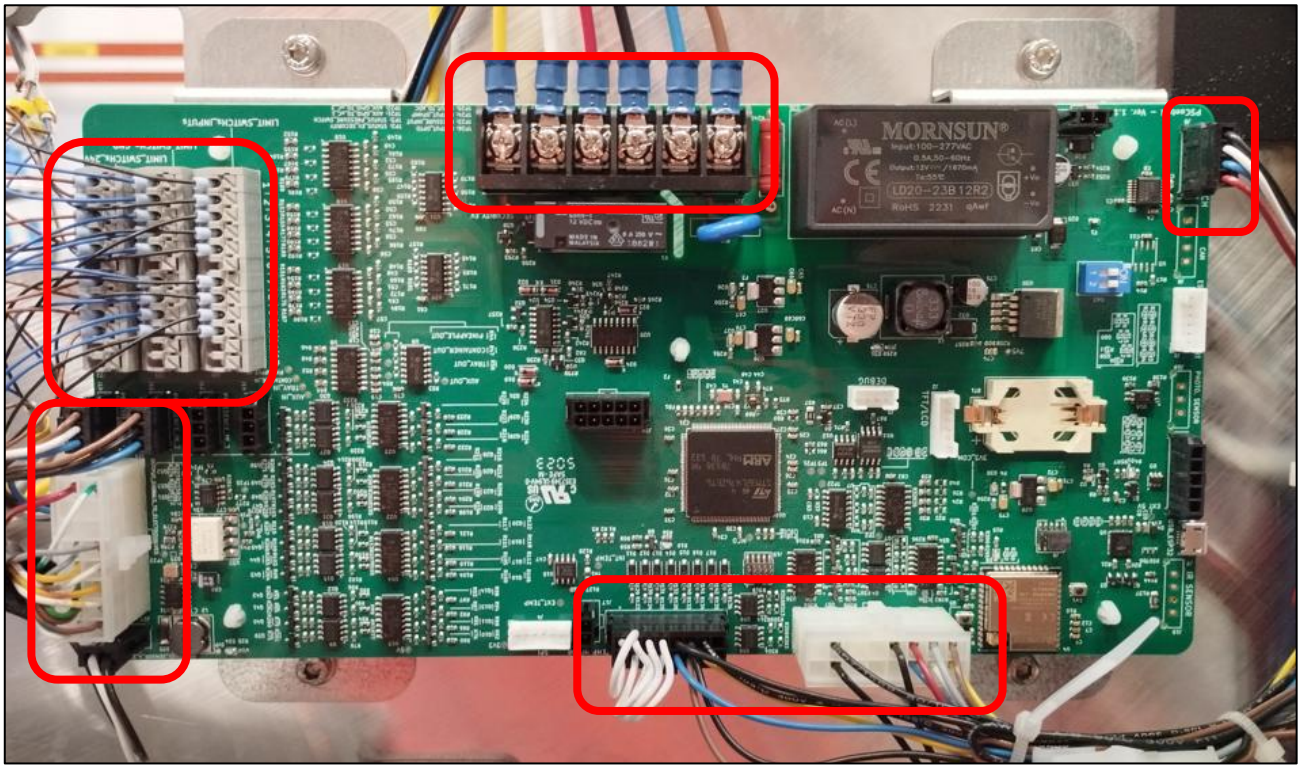
IMPORTANT Before installing a new solenoid valve, check that the gasket is fully installed, otherwise there could be air leaks and malfunction.

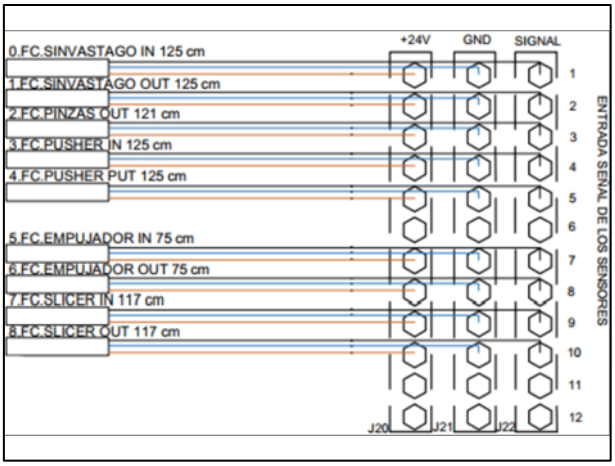


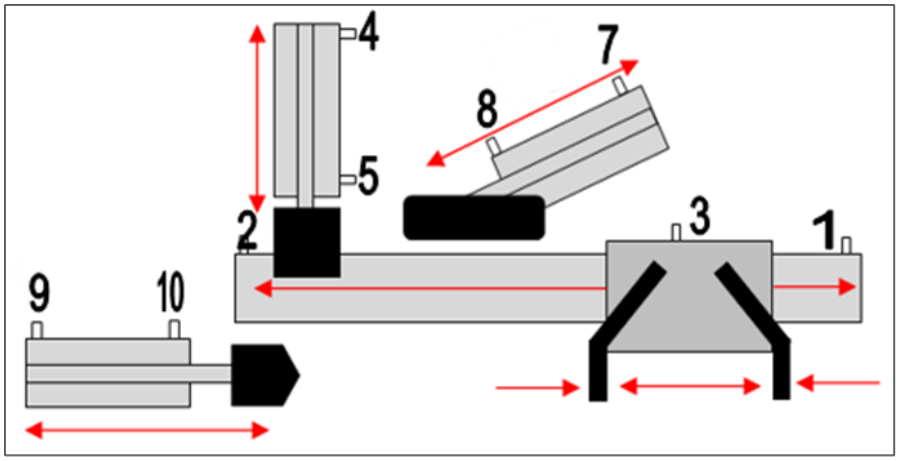
e. Replacing the electronic board

- Disconnect the machine from the mains
- Remove the rear bottom cover (**point 6**).
- Disconnect all wiring.

IMPORTANT: mark the position of each cable/connector. A bad connection will cause the machine to stop working. Take special care with the cylinder sensors.

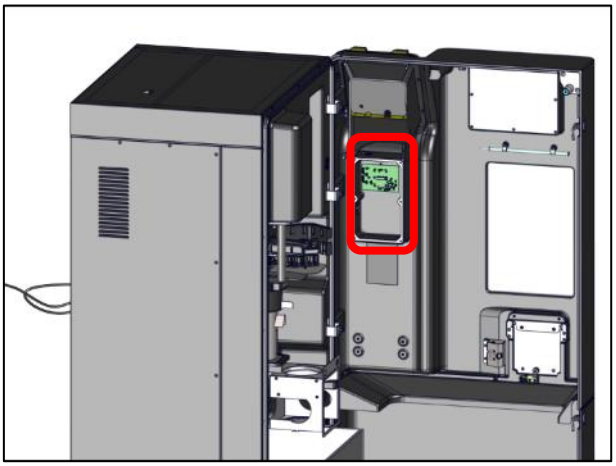


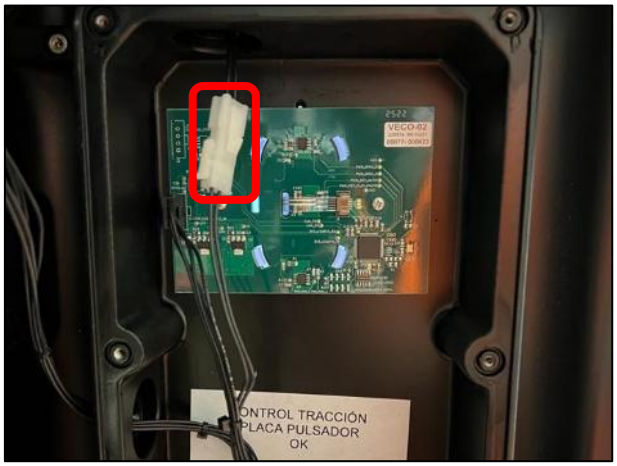




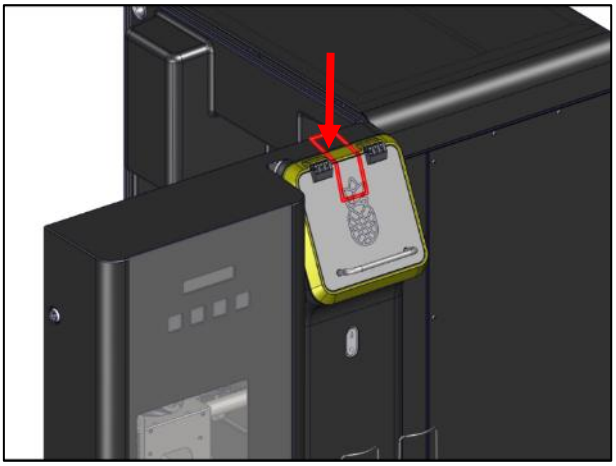
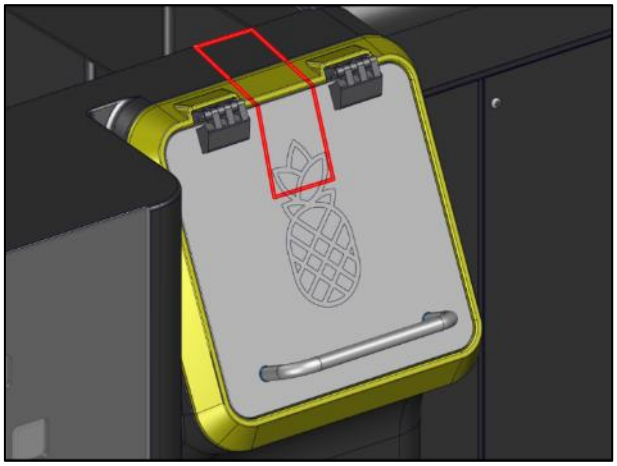
f. Replacing the pineapple door sensor

- Disconnect the machine from the mains
- Remove the touch panel access cover and door sensor (**point 6**) to access the sensor and disconnect it.

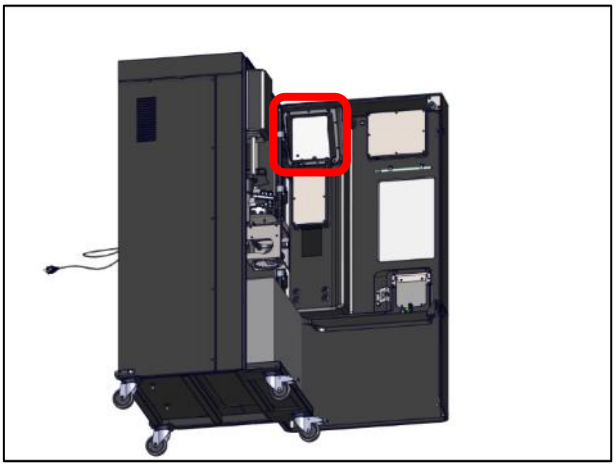


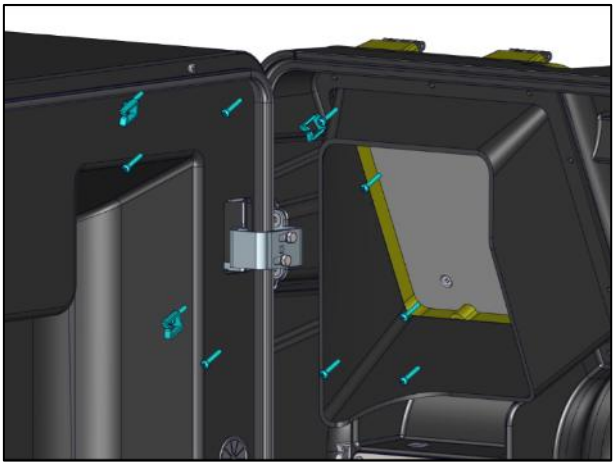
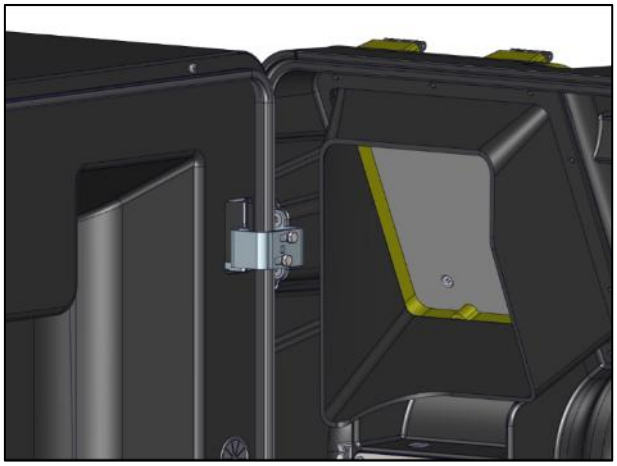


- Stick a piece of tape or similar to hold the cover to the machine chassis to prevent it from falling when the screws are removed.

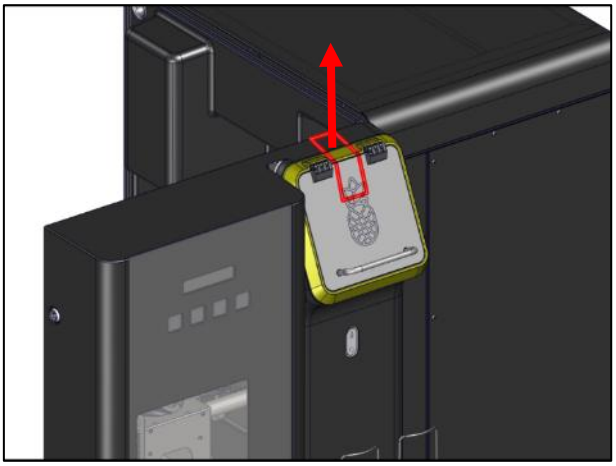
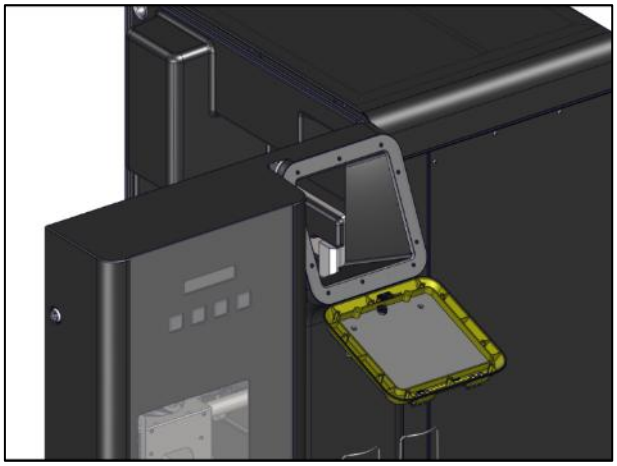



- Remove the wiring from the clips and remove the Torx T20 screws that secure the door frame.

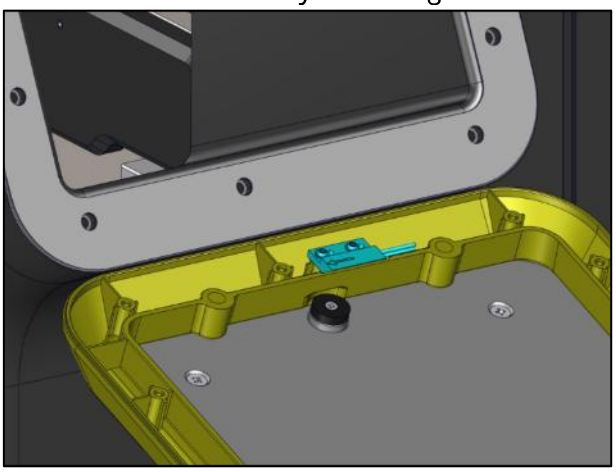
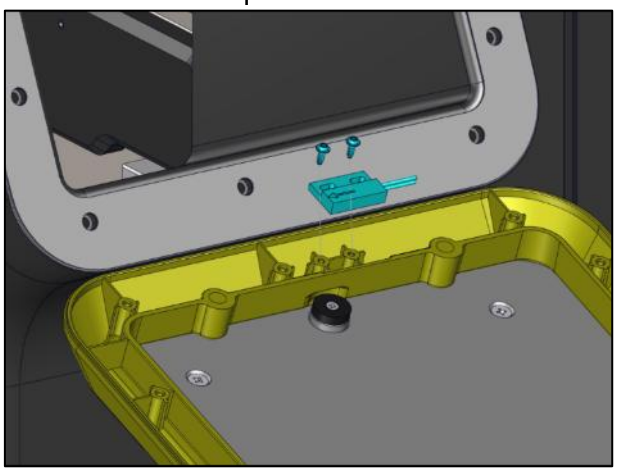


- Remove the adhesive from the door to remove the sensor.

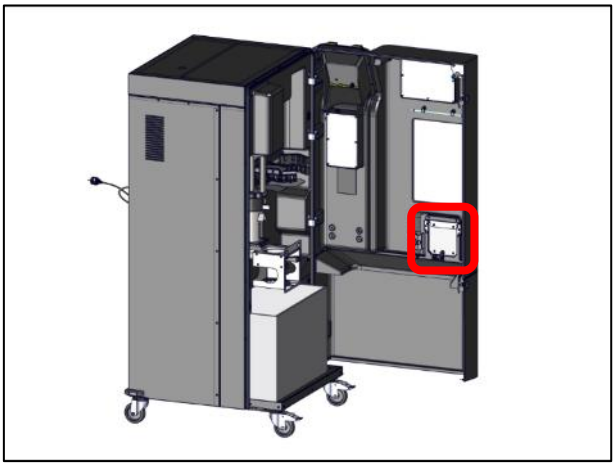
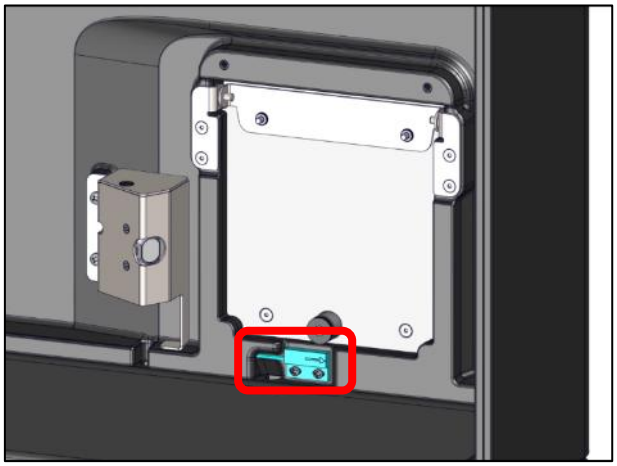



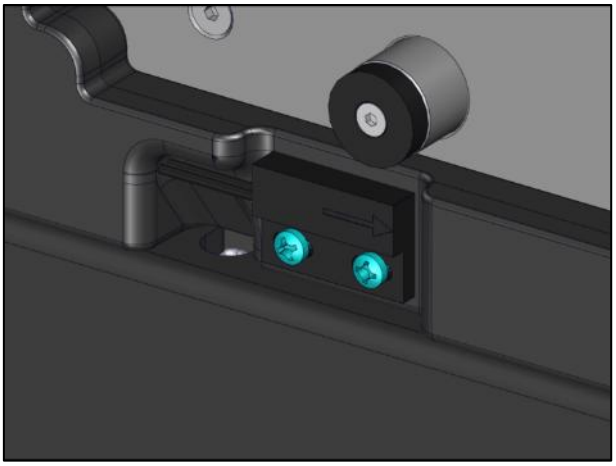
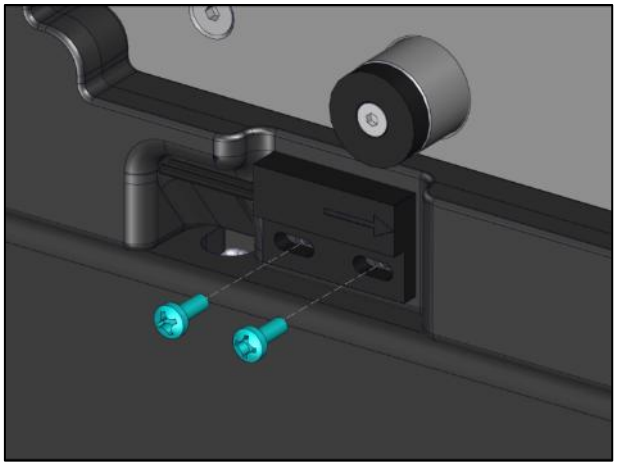
- Remove the sensor by removing the two screws and reverse the process to install the new one.

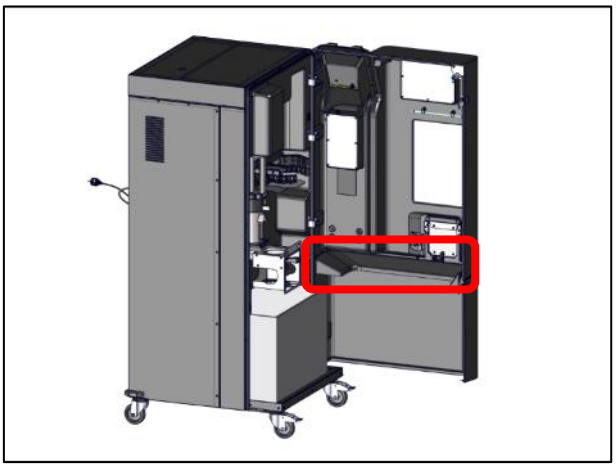
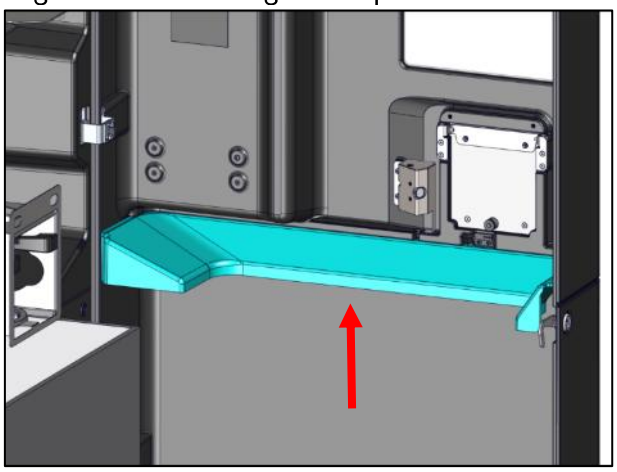
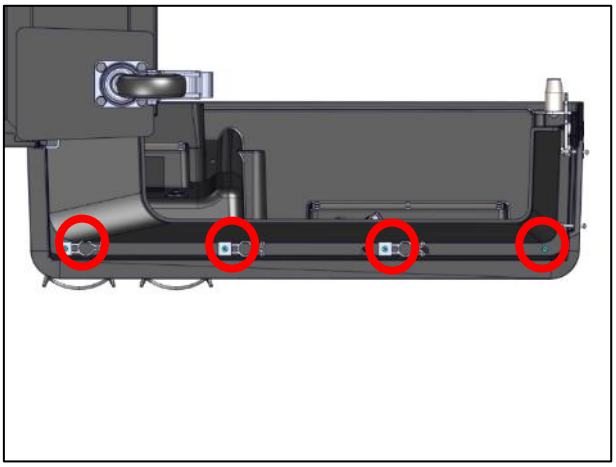
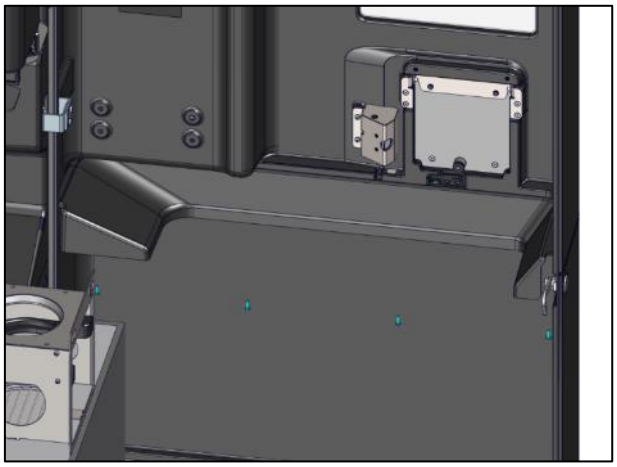
g. Replacing the door sensor on the detergent dispenser

- Disconnect the machine from the mains
- Remove the Phillips screws securing the sensor to the door frame of the bin.

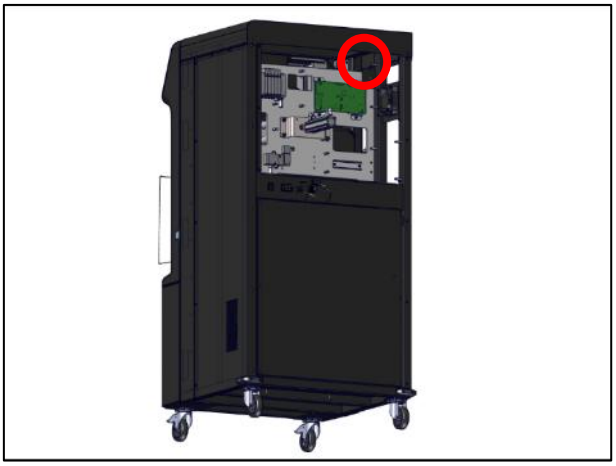
- Loosen and remove the screws that hold the funnel in place, except for the corner screws, until the sensor connector can be removed, disconnecting it from the wiring and clips.

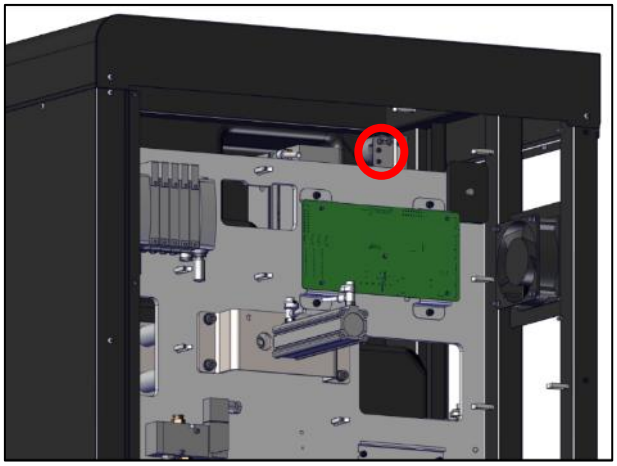





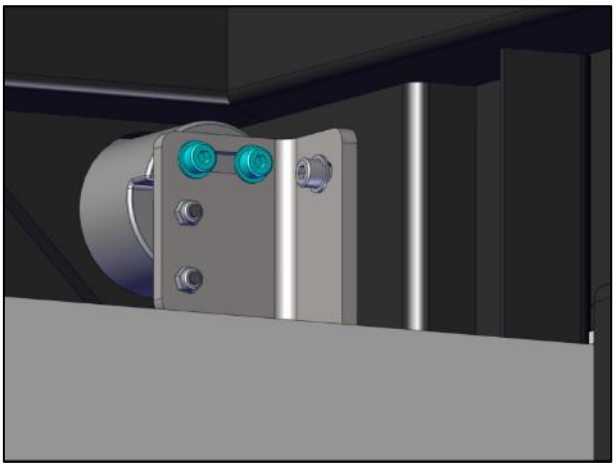
- To reassemble the new sensor, reverse the process.

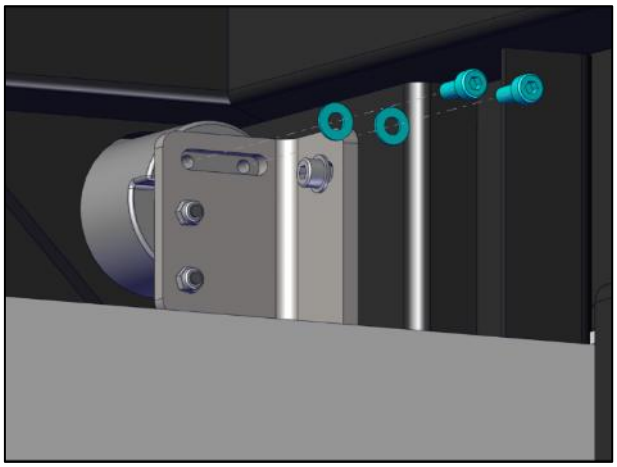
h. Replacing the front door sensor

- Disconnect the machine from the mains
- Remove the upper rear cover and the left side cover (**point 6**).
- Remove the screws holding the door shaft bushing.

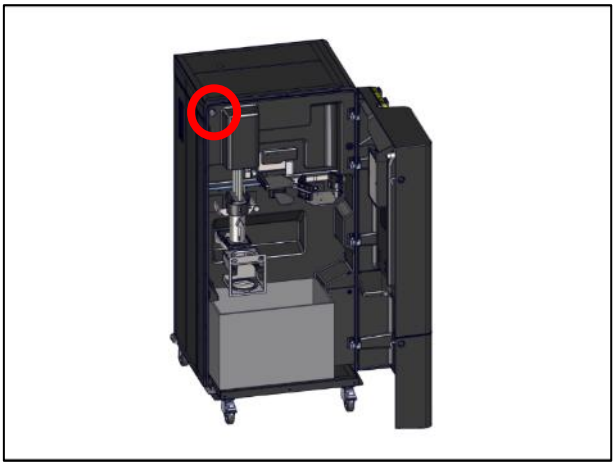
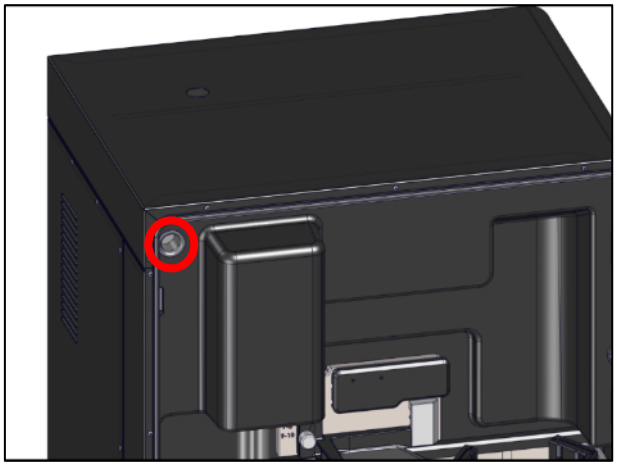
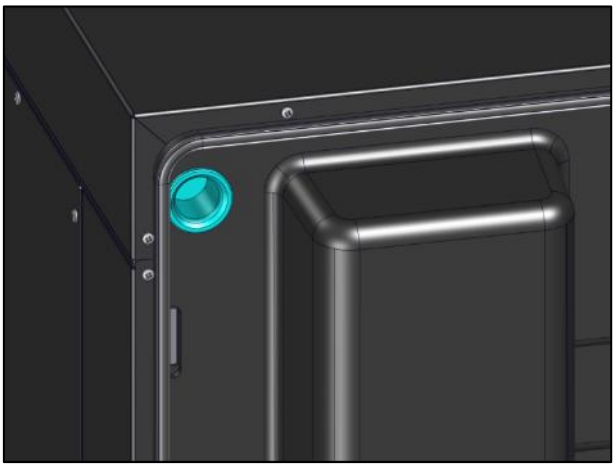
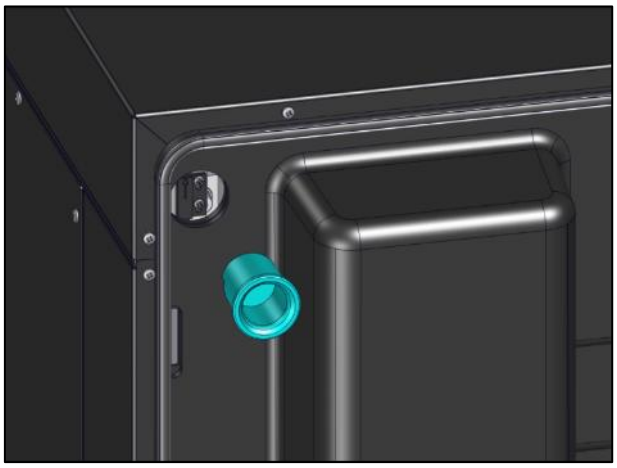




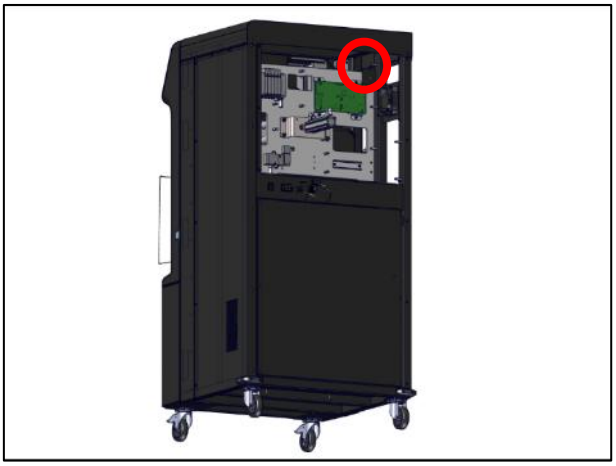
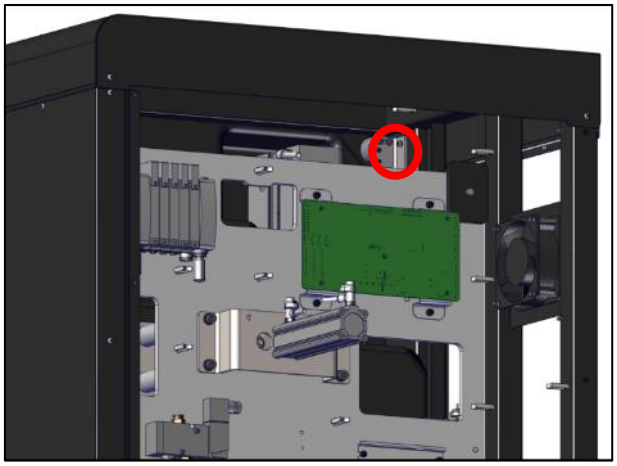


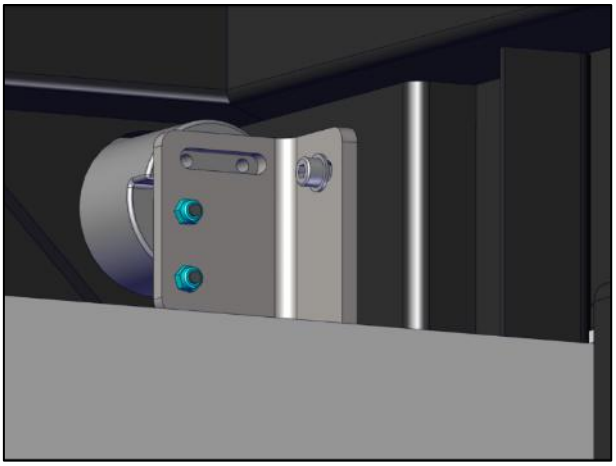


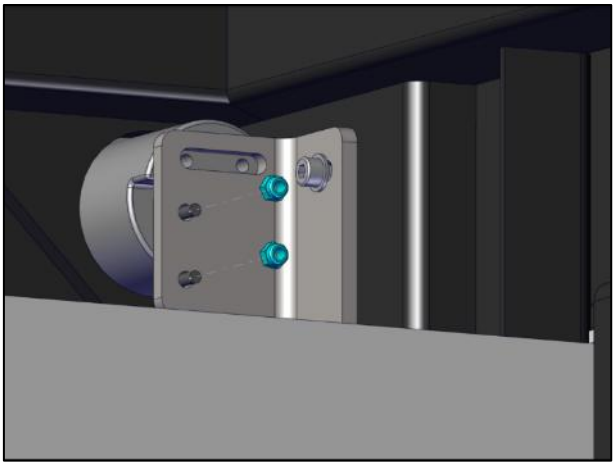
- Remove the bushing to access the sensor.

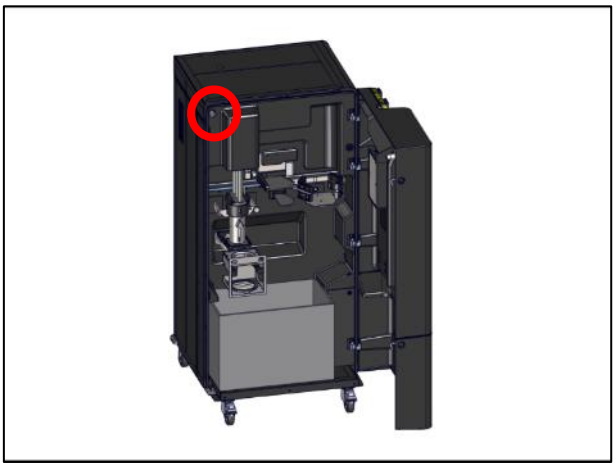





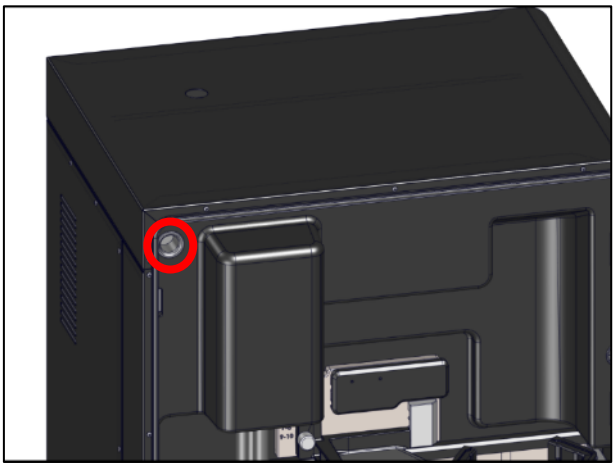
- Using a Phillips screwdriver and a 5.5 mm spanner, remove the screws securing the sensor to the metal bracket.

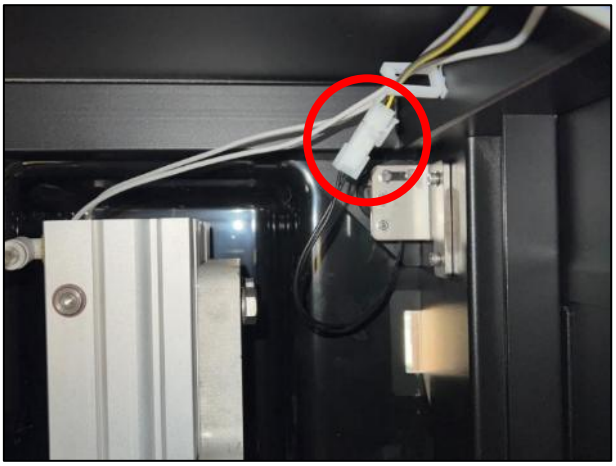


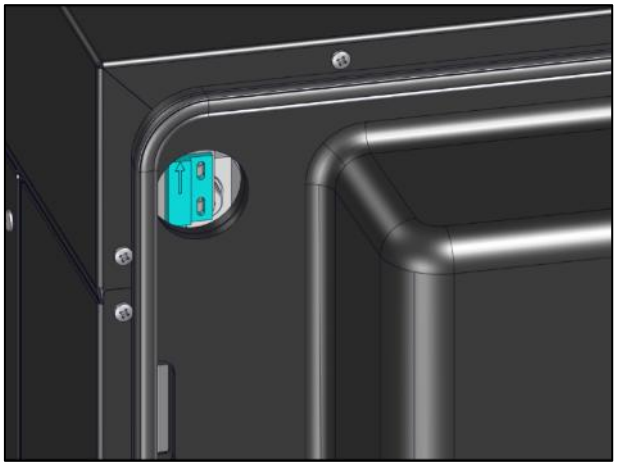






- Disconnect the sensor and remove it to install the new one.



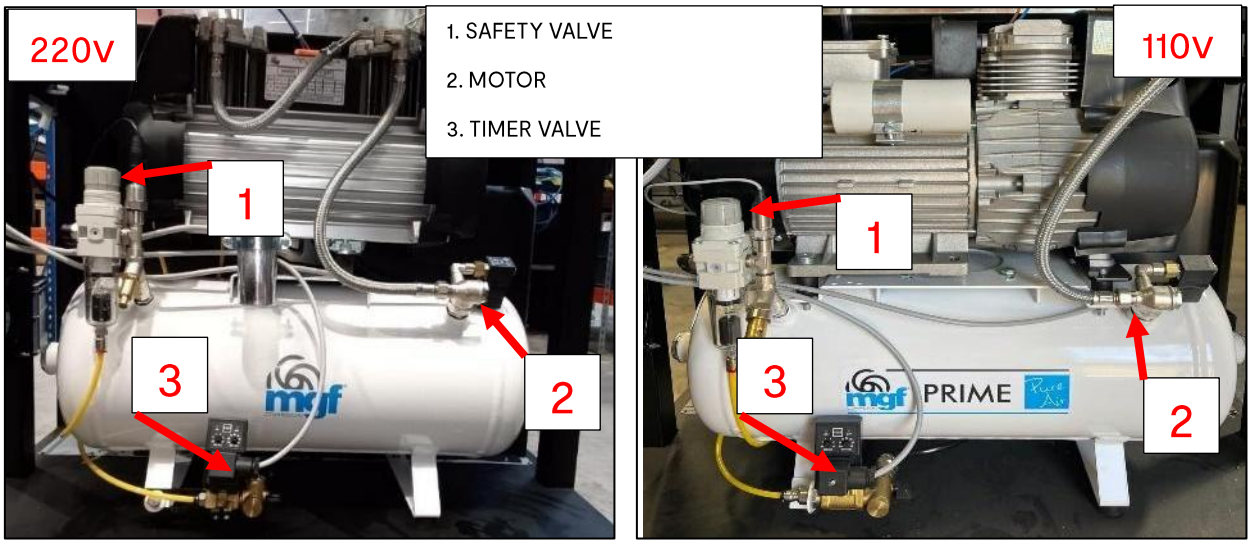


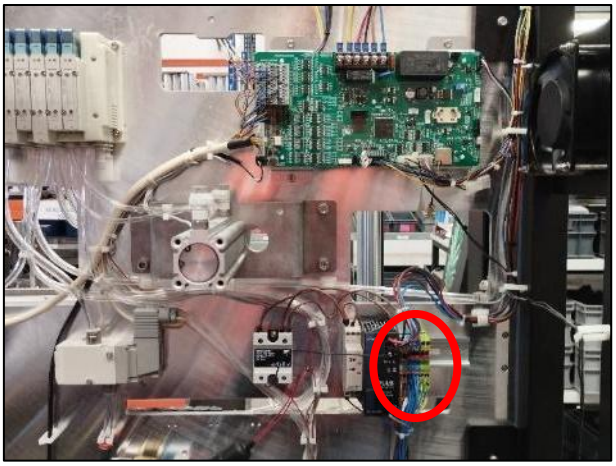
- To refit the new sensor, reverse the process.

i. Compressor replacement (220V/110V model)

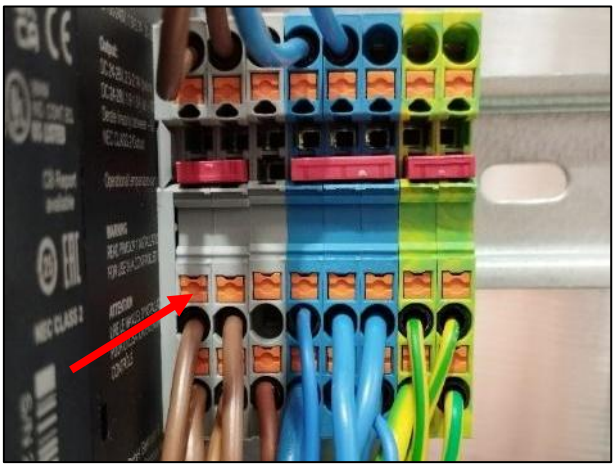
- Disconnect the machine from the mains
- Remove the upper and lower rear covers (**point 6**).
- Disconnect the electrical hoses from the compressor from the control and command area terminals.

> **IMPORTANT**: mark the position of each cable/connector. A bad connection will cause the machine to stop working. Check the wiring diagram (point 13).

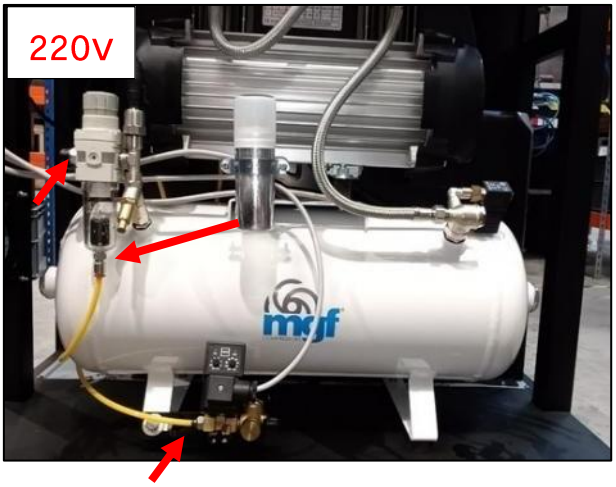


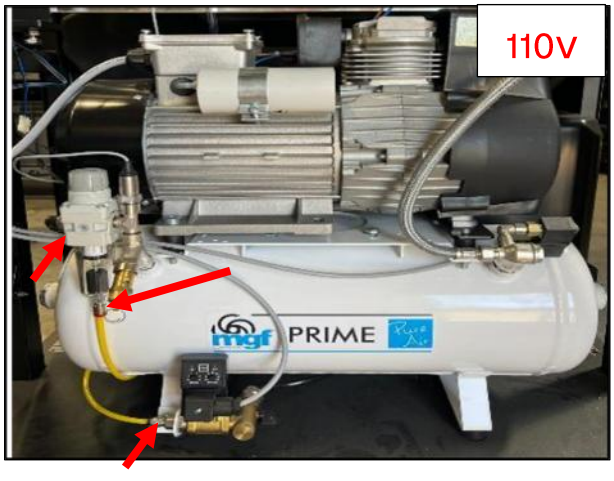


- To disconnect the cables, press the pressure connector on the terminal block and the corresponding cable.

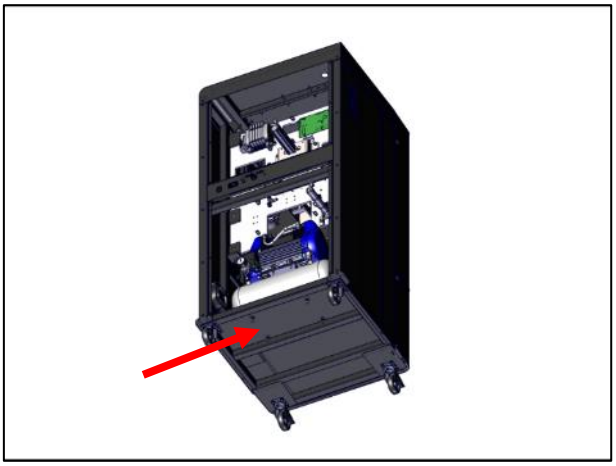
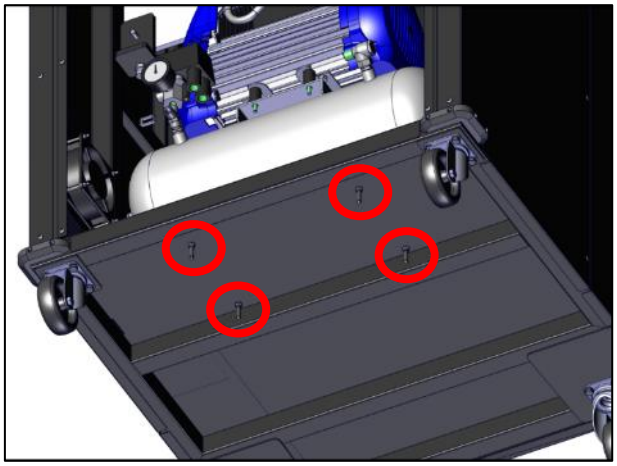
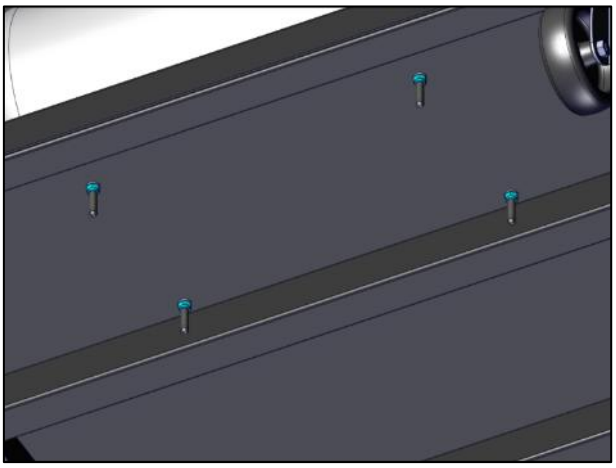
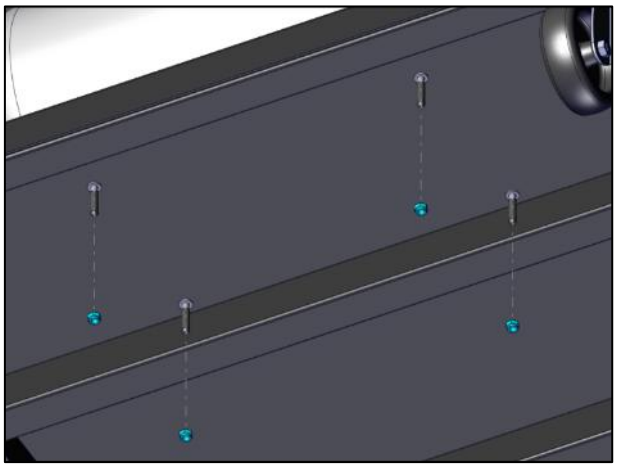


- Disconnect the pneumatic tubes from the timed discharge valve, the dehydrator and the maintenance unit.

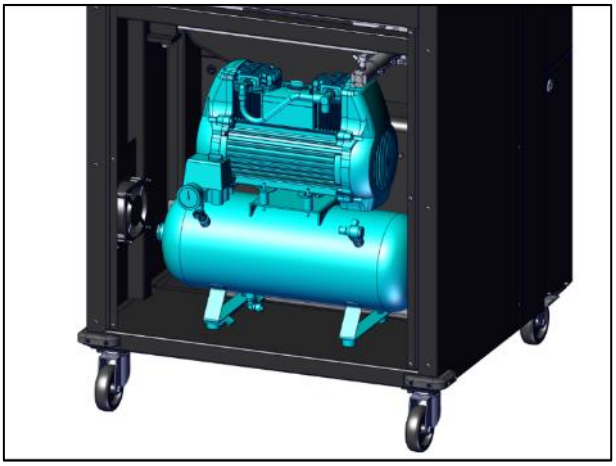
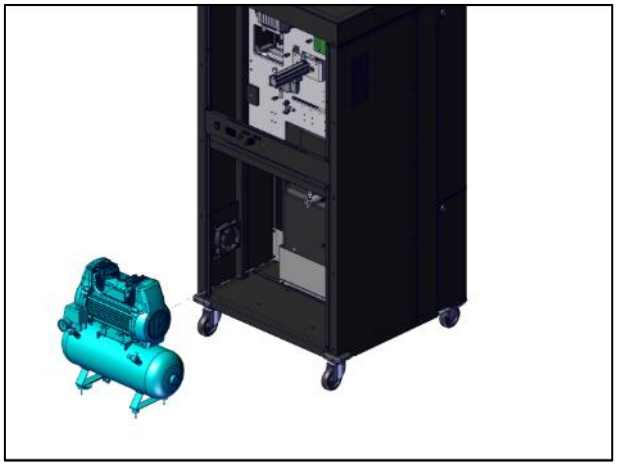




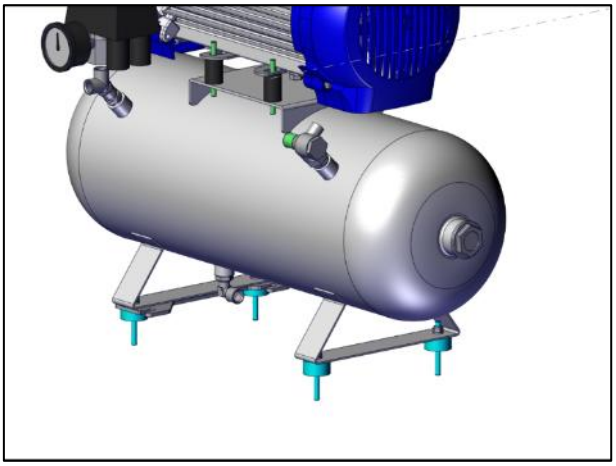
- Remove the screws securing the compressor to the base of the machine.

- Remove the compressor together with the silent blocks.

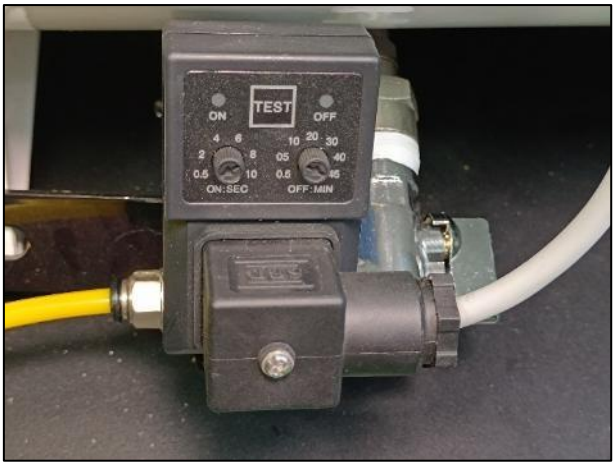



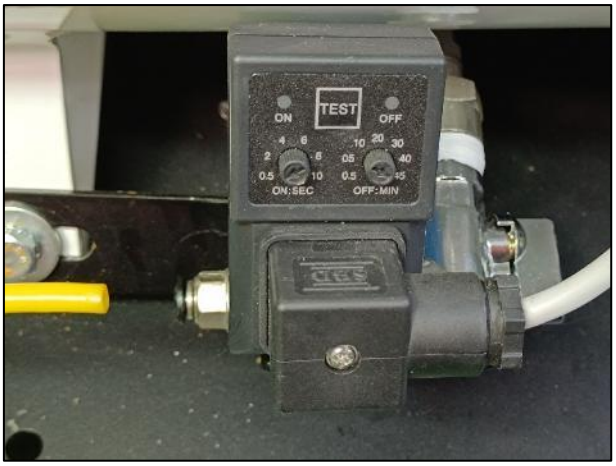
- Install the new compressor. Connect the pneumatic pipe and wiring. Check operation.



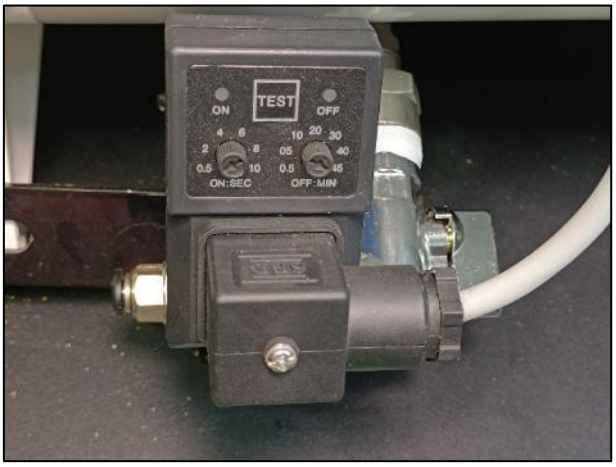
j. Replacement of the discharge valve

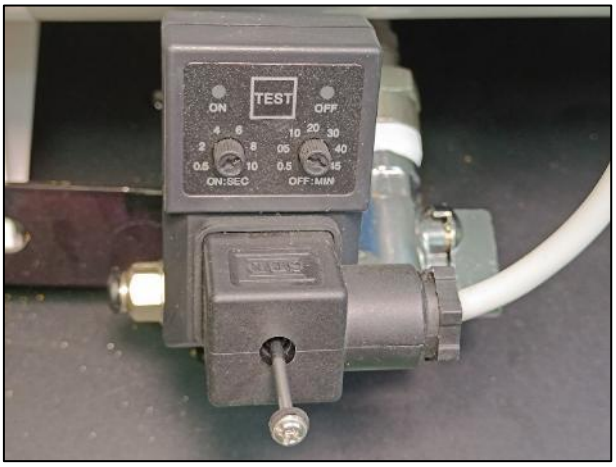
- Disconnect the machine from the mains power supply.
- Open the machine by removing the rear bottom cover (**point 6**).
- Purge the air from the compressor.
- Disconnect the yellow pneumatic pipe from the timer.

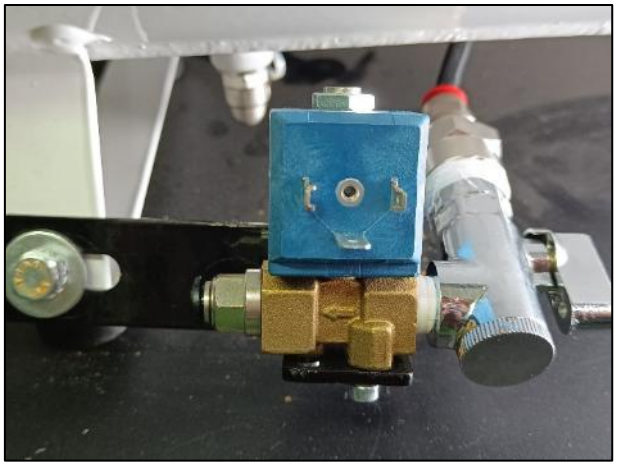




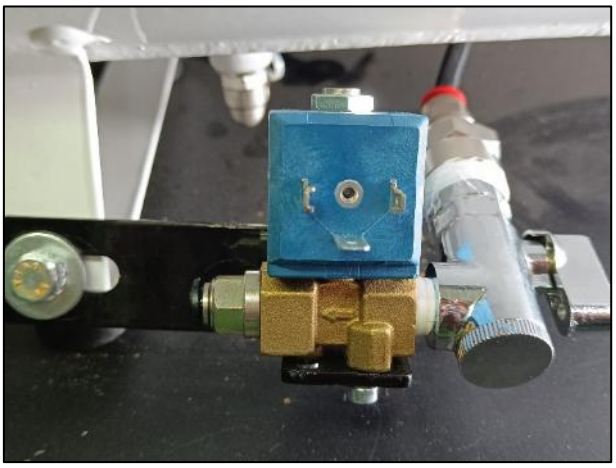
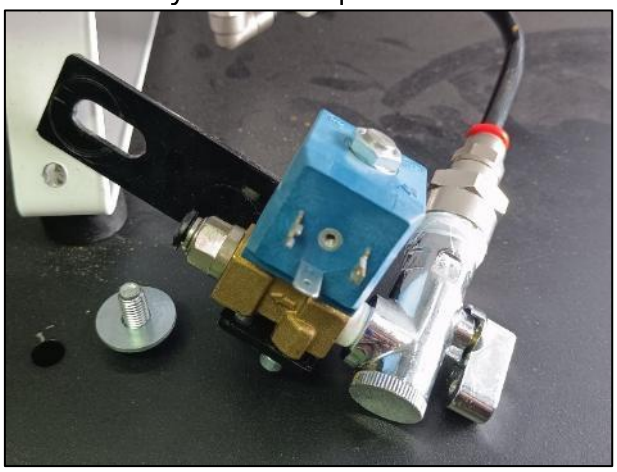
- Using a Phillips screwdriver, loosen the timer connector.



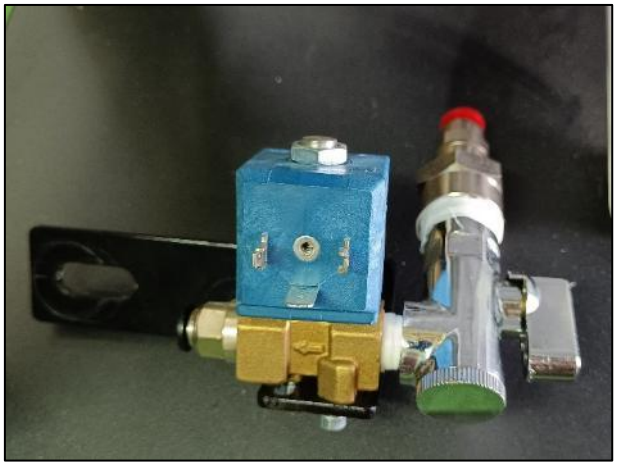




- Remove the screw that secures the solenoid valve assembly to the compressor.

- Disconnect the black pneumatic pipe from the fitting to the boiler.

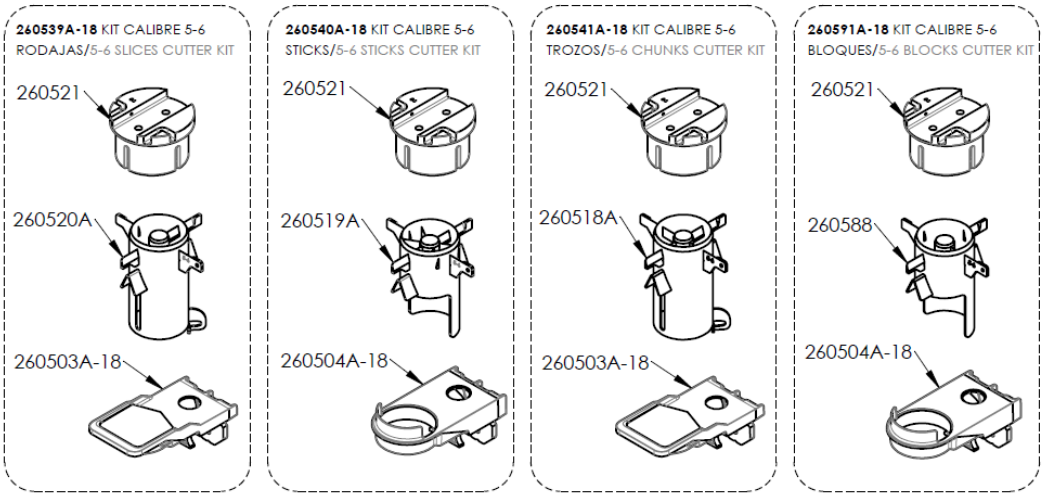
- To connect the new solenoid valve, reverse the process.

k. Replacement of electrical components on the main board.

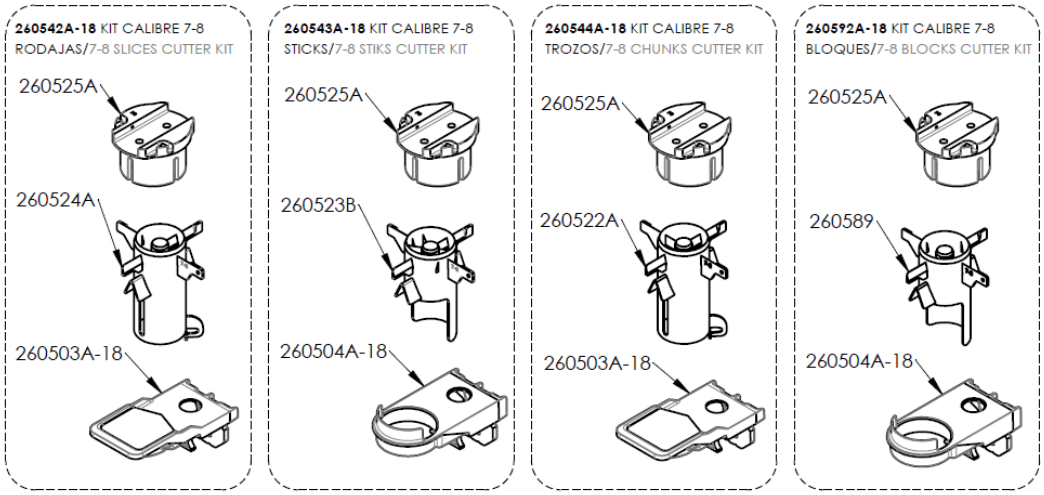
- To replace any of the electrical components on the main board, simply replace the damaged component with the new one, ensuring that the settings and wiring are correct.

12 -cut kits

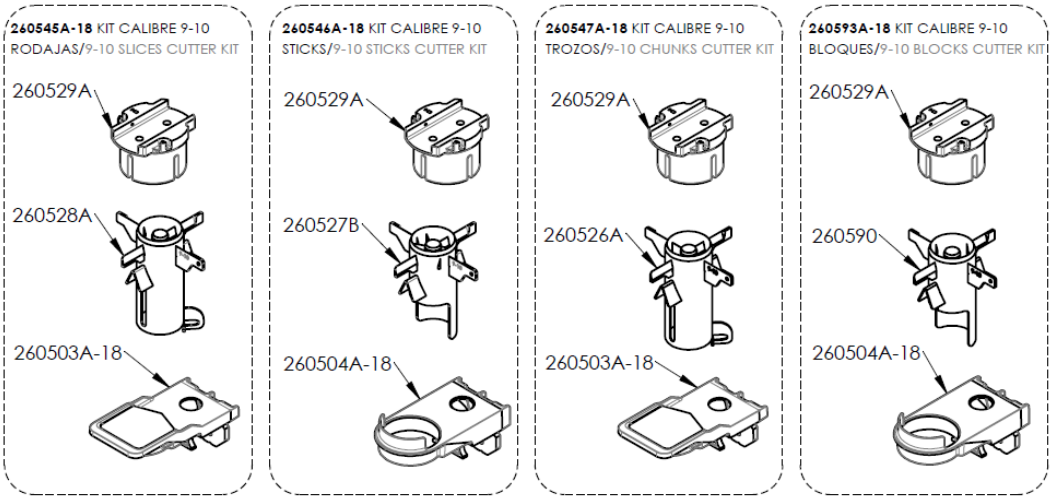
a. 5/6 calibre pineapple cutter (diameter over 135 mm)



b. 7/8 pineapple cut (diameter 115-135 mm)

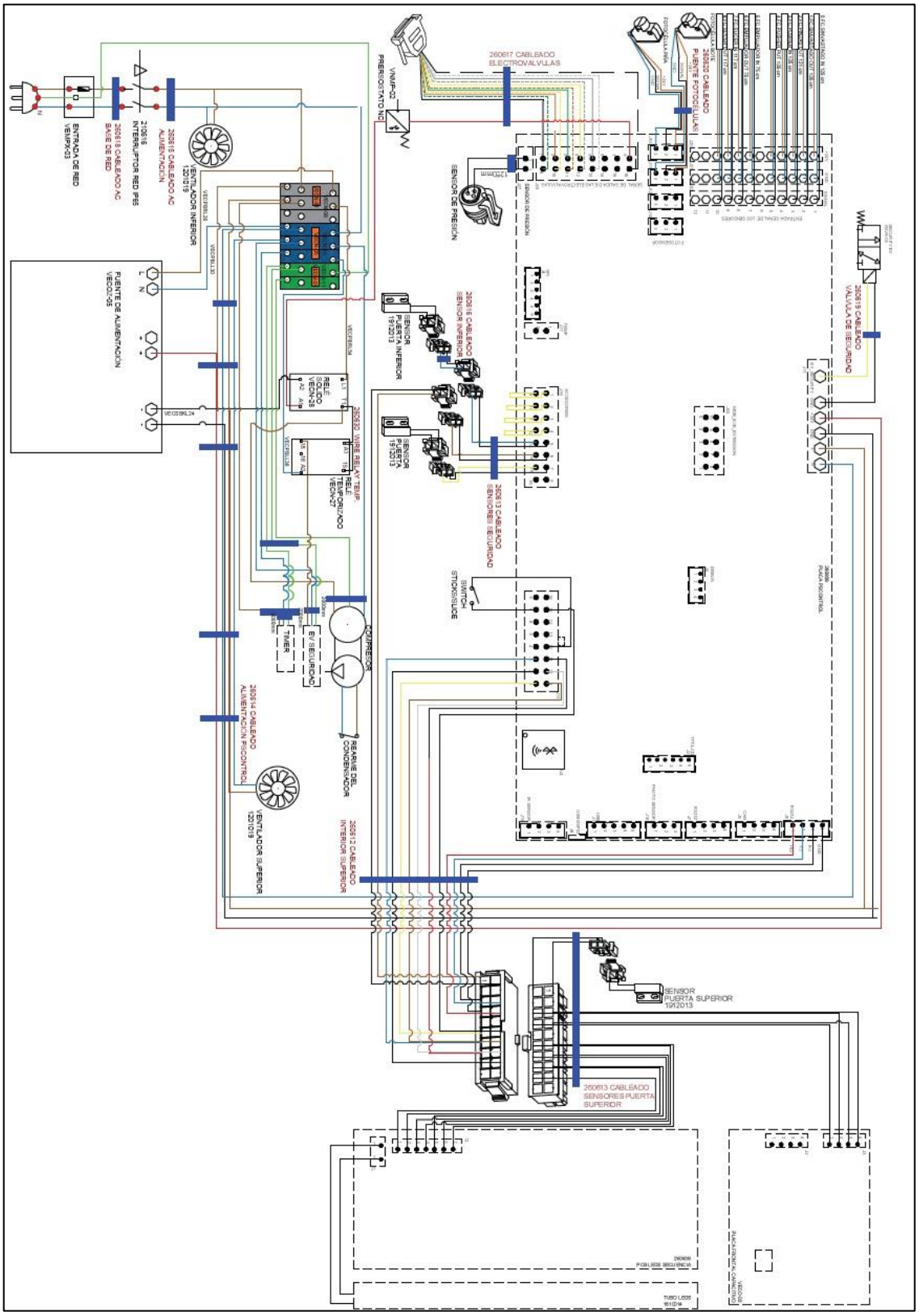


c. 9/10 pineapple cutter (diameter up to 115 mm)

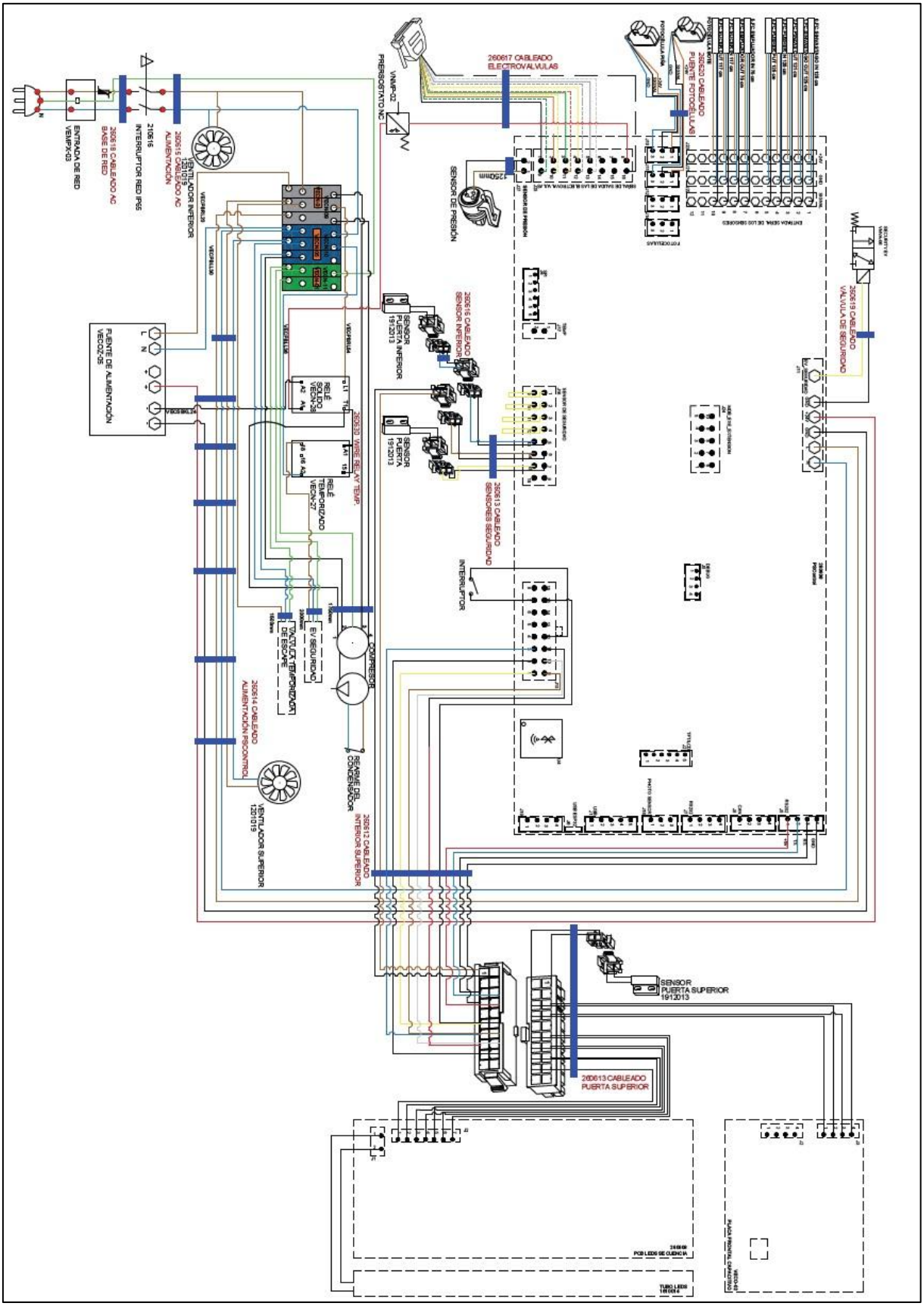


13 APPENDIX: Electrical diagrams for s

a. 26 CE electrical diagram



b. Z26 UL electrical diagram



14 Maintenance programme (see Maintenance checklist)

SST	NOTE: Wear gloves and goggles when cleaning the machine	

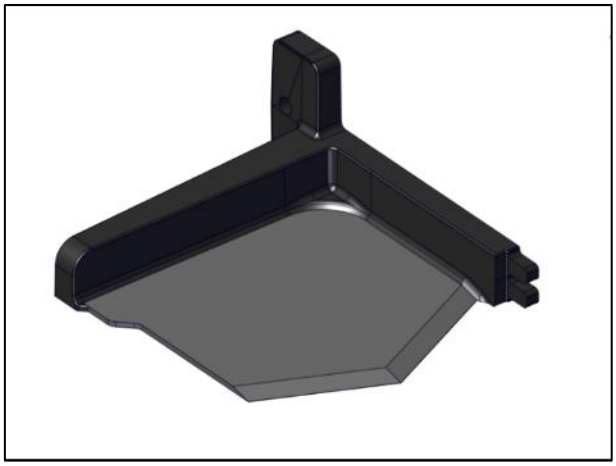
a. External inspection prior to opening the machine (de-energised)

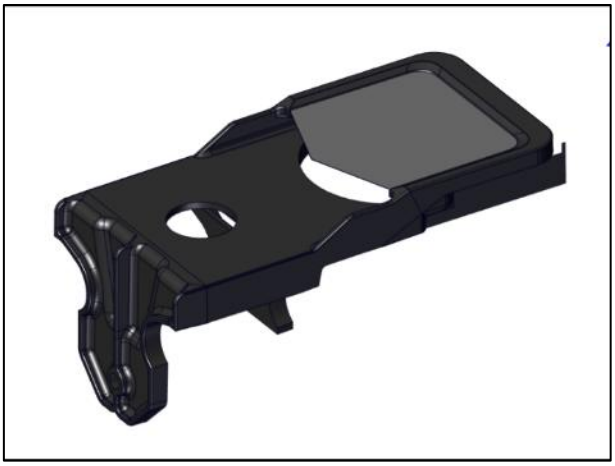
✓ **Check external parts**

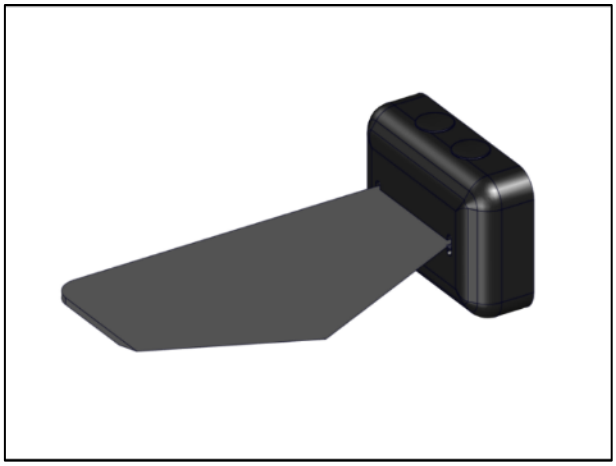
Check the condition of all external components to ensure they are in good condition and free from breakage. (Methacrylate, door inserts and pineapple, handles, etc.).

✓ **Check the condition of the blades**

Check that the blades are sharp and free of damage or bending.

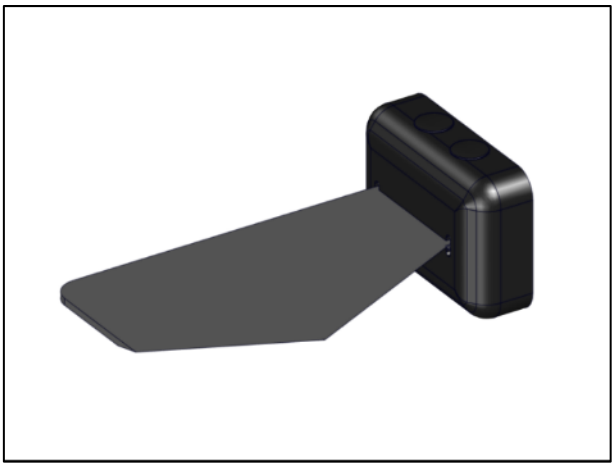


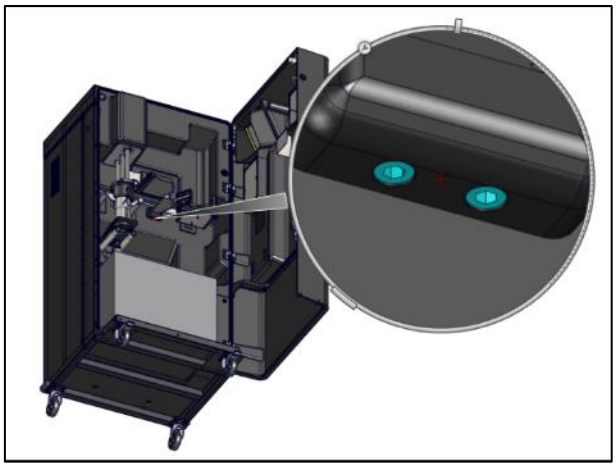




✓ **Check that the fixed blade is tight**

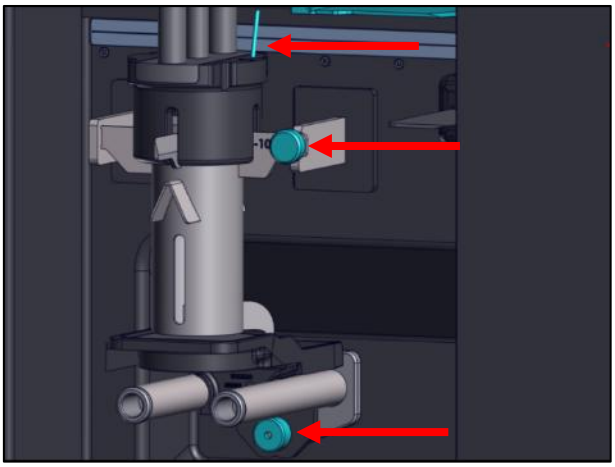
Check the tightness of the fixed blade screws to ensure there is no play.





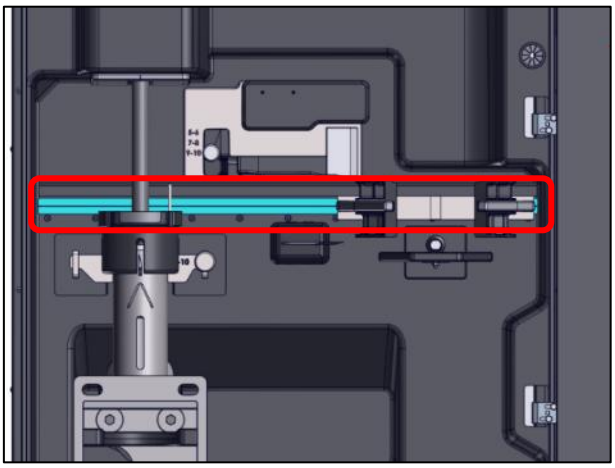
✓ **Check the condition of the nuts/knobs and the pusher pin/**

Check that the nuts/knobs and pin are in good condition and show no signs of breakage or wear.



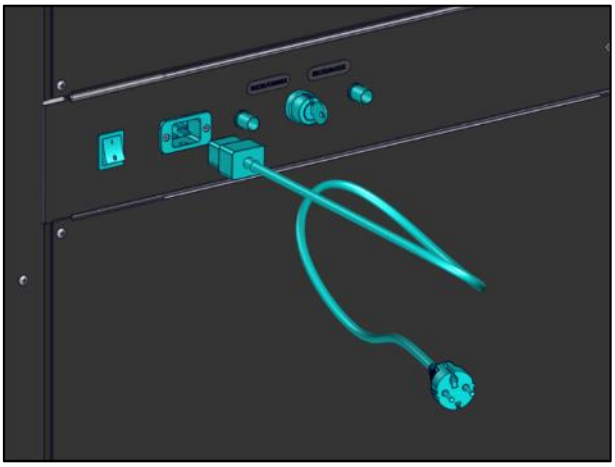
✓ **Check the condition of the silicone seal where the linear cylinder moves**

Check that the silicone seal is not broken or damaged.



✓ **Check the power cable, switches, selector and fuse holder (if present)**

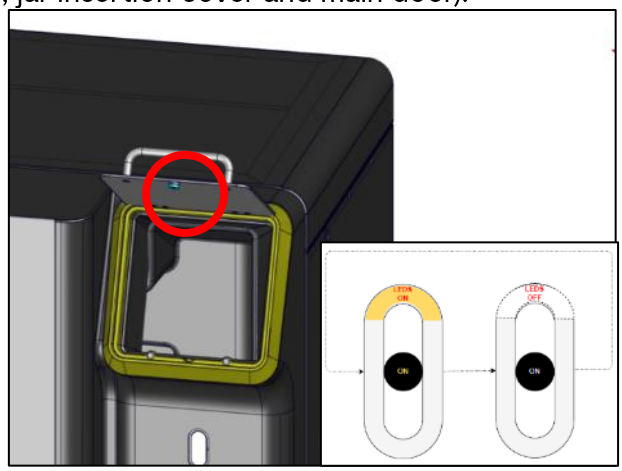
Check that all components are free of breakage or damage; replace if necessary.

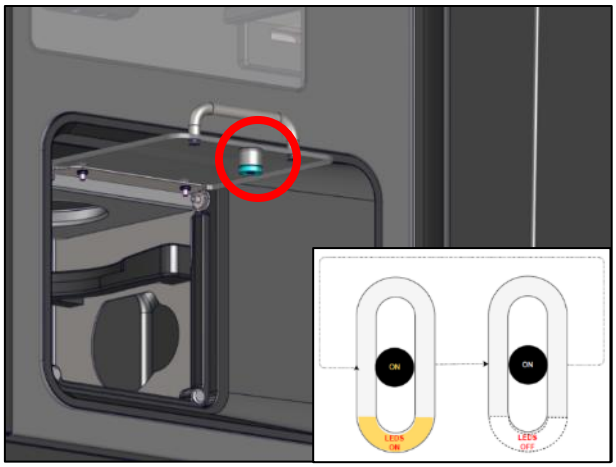


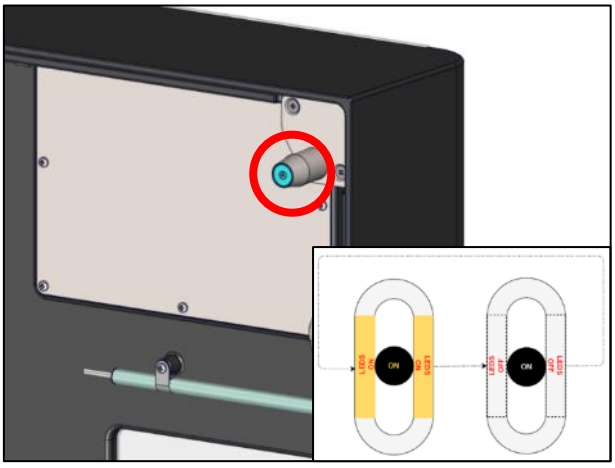
b. External inspection prior to opening the machine (with power on)

✓ **Check the machine's safety devices (opening all doors)**

Check that all the magnets on the machine doors are in place and working correctly (pineapple insertion cover, jar insertion cover and main door).

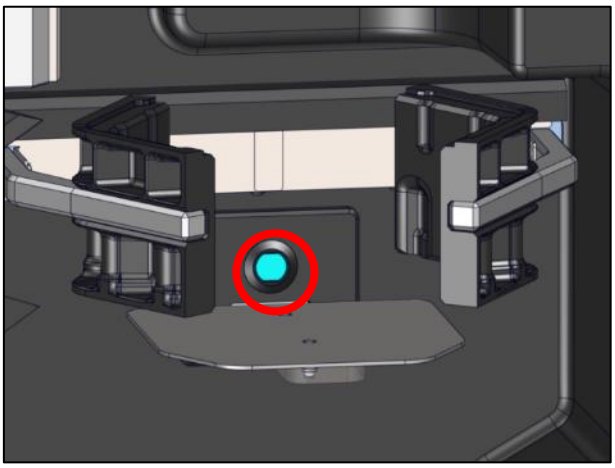


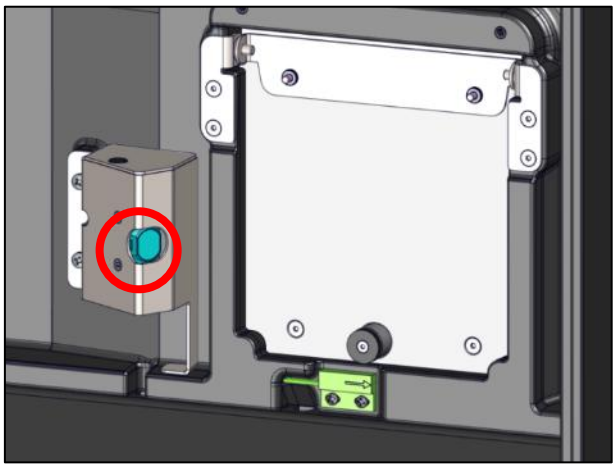




✓ **Check that the sensors are working correctly (can and pineapple detection)**

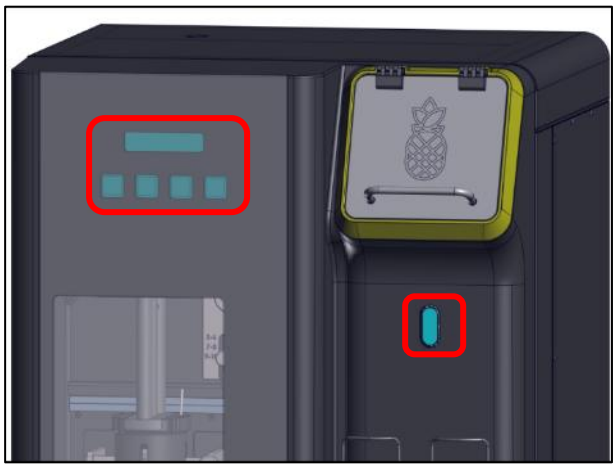
Check that the sensors are working and detecting correctly.

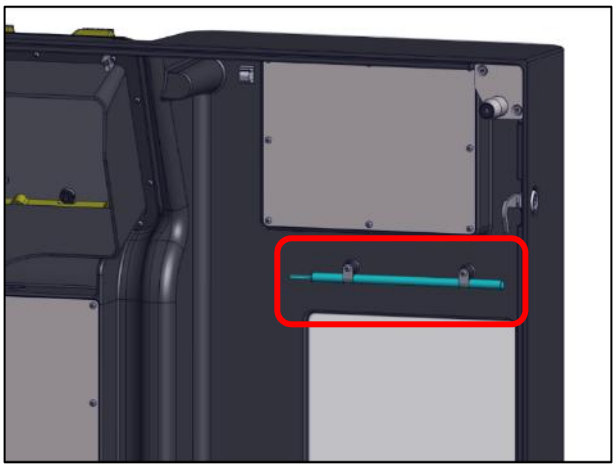




✓ **Check the lighting of the steps to follow display, touch screen and internal LED**

Check all LEDs by performing a service and observing that each corresponding step lights up.

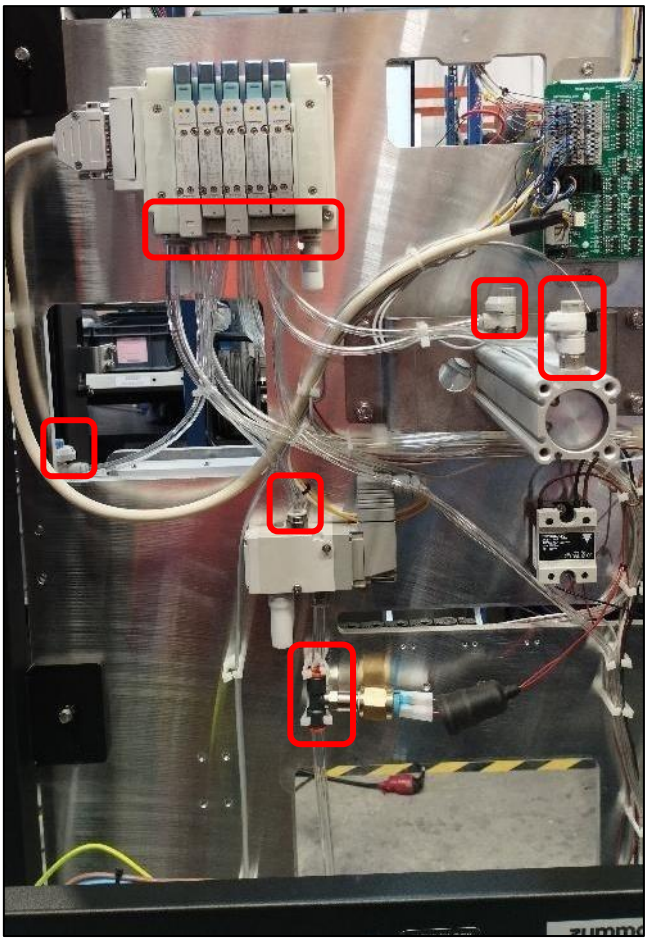


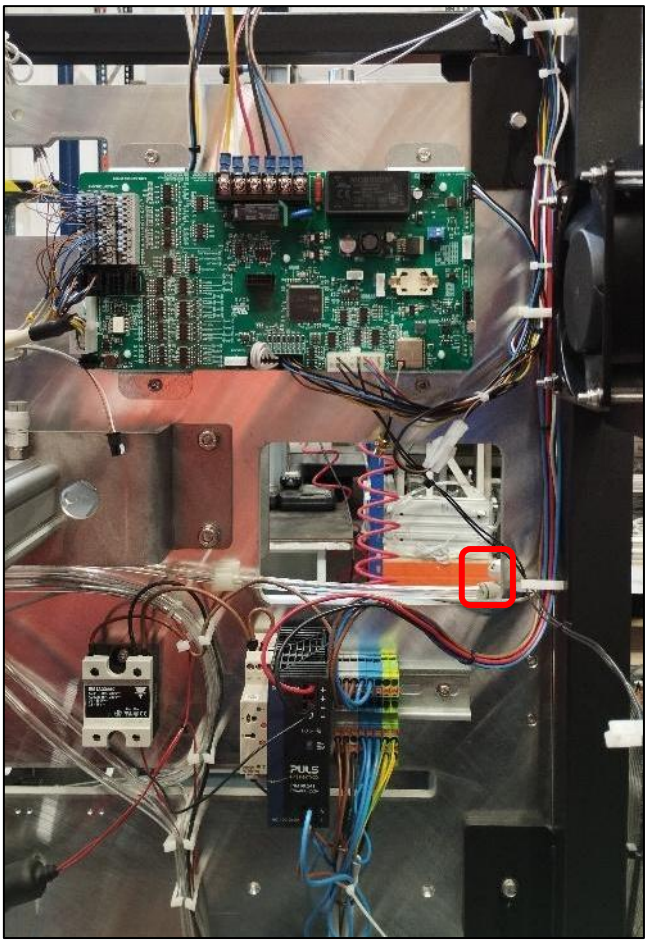


c. Open the machine and inspect the interior (with power on)

✓ **Check that all pneumatic pipes are properly connected and do not leak air**

Check with air in the system that the pipes are not leaking, try moving them a little to see if they are properly connected and do not come loose.





✓ **Check that all sensors are working correctly**

Verify that while a cycle is being performed or the valves are being operated, the corresponding sensor lights up according to the position of the cylinder.

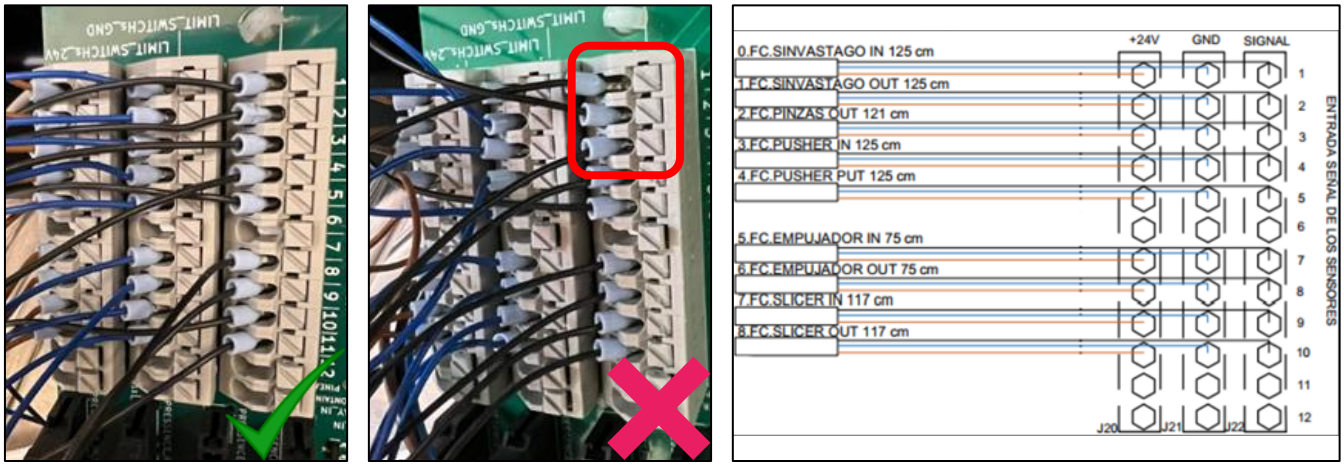
✓ **Check that the cylinders do not leak air**

Check that while a cycle is in progress or the valves are being operated, there are no leaks in the pneumatic components (cylinders, pipes, connections, etc.).

d. Open the machine and inspect the interior (with the power off)

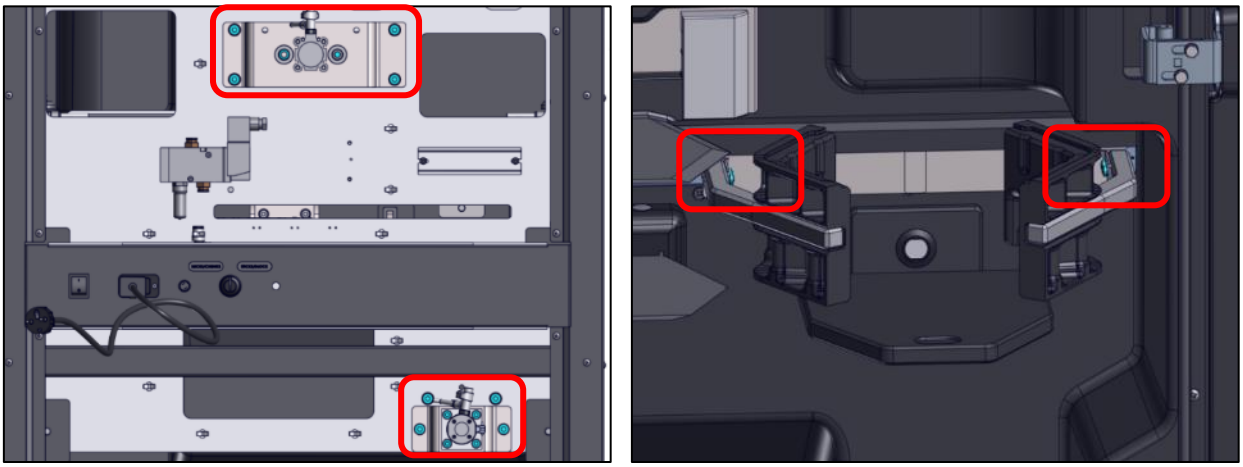
✓ **Check the wiring from the sensors**

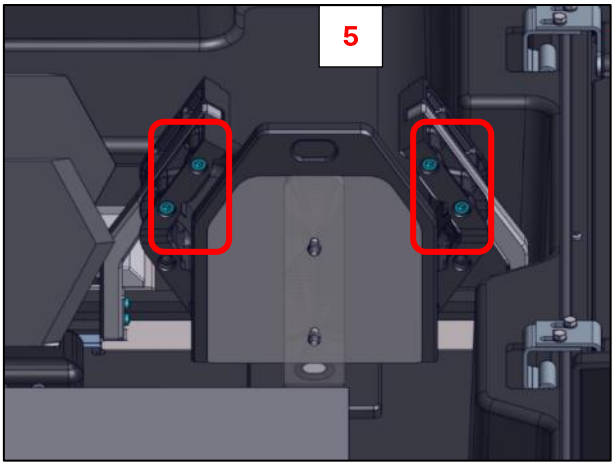
Check the sensor wiring for damage, ensure that everything is properly connected and that all terminals are correctly inserted in the terminal block.

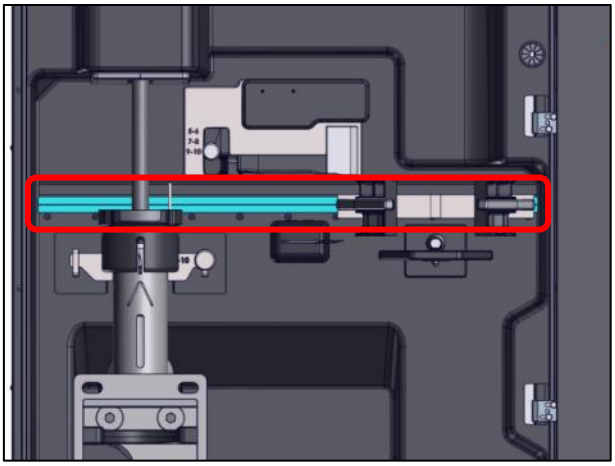


✓ **Check the screws on the most important components (cylinders).**

Check the tightness of all cylinder screws.

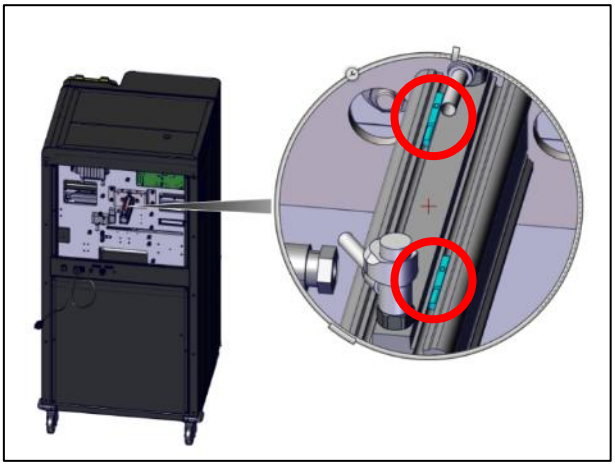






✓ **Check that all sensors are securely fastened**

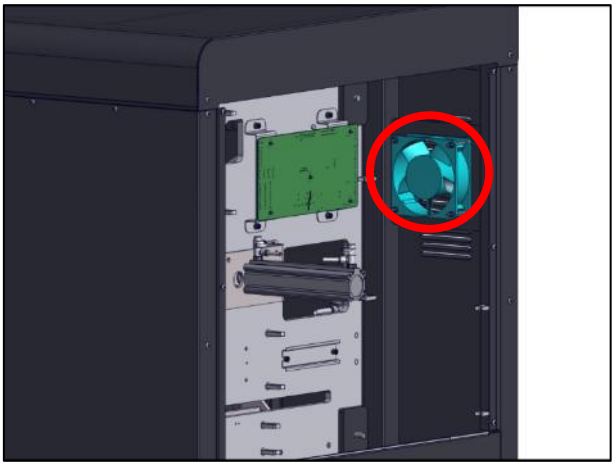
Check the tightness of all cylinder sensors to rule out malfunction.

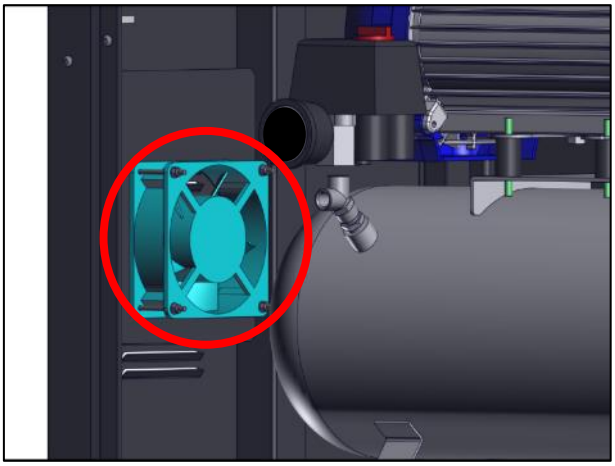


e. General machine maintenance

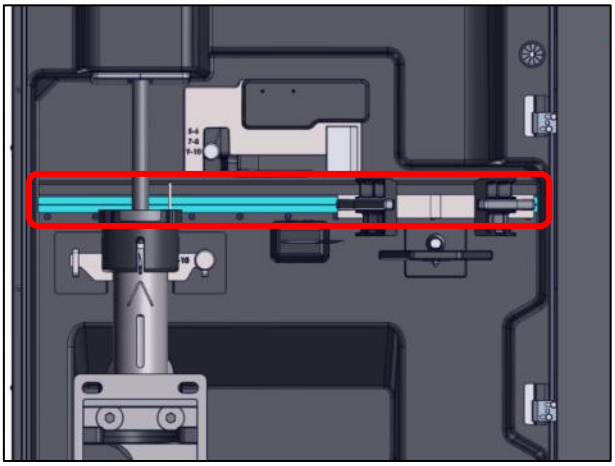
✓ **Clean ventilation fans**

- Clean the fans and their corresponding grilles of any dirt so that the machine has good ventilation. Clean as much dust as possible from the inside, especially from the linear cylinder, so that grease can be applied correctly afterwards.

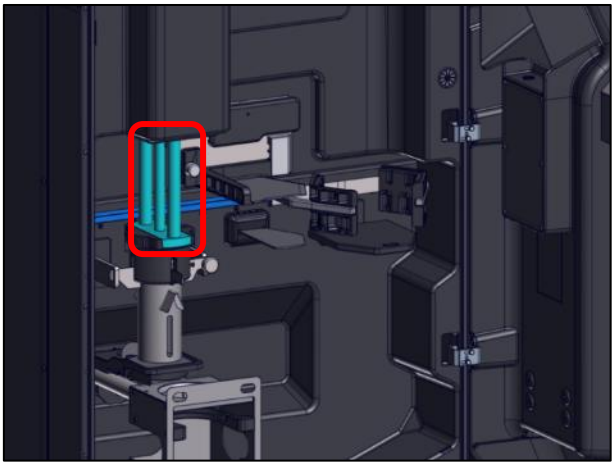




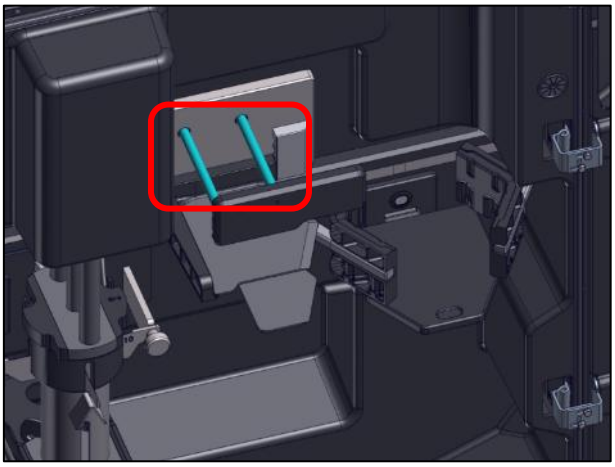
✓ Lubricate the silicone seal of the linear cylinder with Vaseline or food-grade grease



✓ Lubricate the peeler cylinder guides with food-grade grease

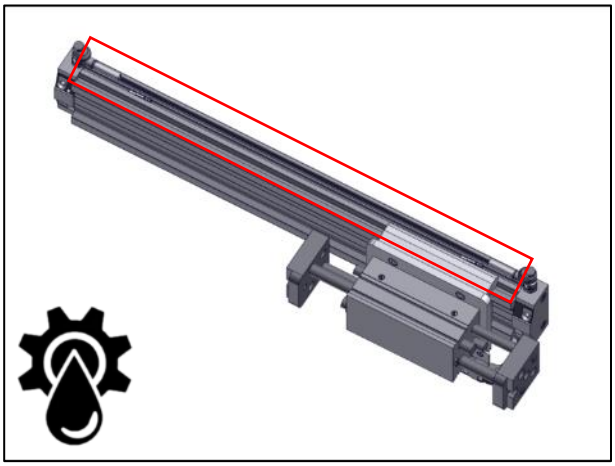


✓ Lubricate the guides of the ridge pusher cylinder with food-grade grease



✓ **Lubricate the linear cylinder**

- After cleaning and removing dust properly. Apply petroleum jelly or food-grade grease to the linear cylinder guides where the clamp moves.



✓ **Tighten the wiring terminals**

- Check and tighten the wiring on the electronic board correctly.

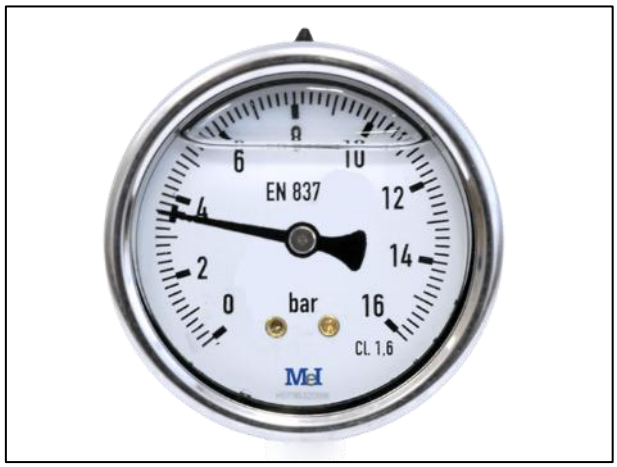
f. Machine test (before compressor maintenance)

NOTE: The air compressor must be emptied first.

Connect the machine so that it loads with the COMPLETE MANOMETER inserted between the regulating valve and the outlet pipe to the valve island.

✓ **Minimum working pressure (bars)**

- Note the minimum pressure at which the machine is operating before performing compressor maintenance. This is obtained after each service before the compressor starts charging air again. The pressure should be around 6 bar.



✓ **Maximum working pressure (bar)**

- Note the maximum pressure at which the machine is working before performing maintenance on the compressor. This is obtained after each service when the boiler has already been charged. The pressure should be around 8 bar.

✓ **Charge time between cycles (seconds)**

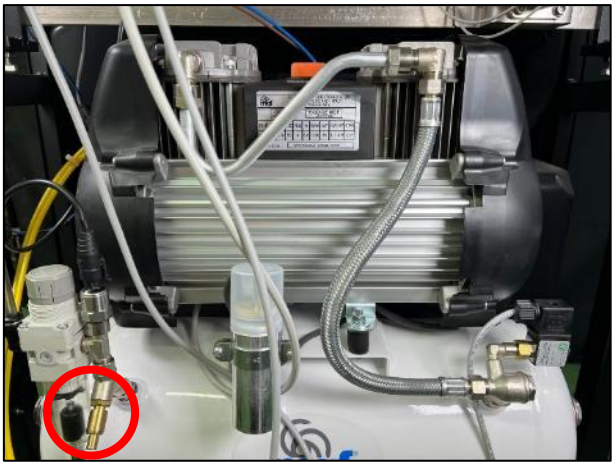
- Note the compressor's charging time before maintenance to compare it with the time after maintenance. This is obtained after each cycle and before the next one. It is the time elapsed between when the machine starts charging air again until it finishes charging completely.

g. Annual compressor maintenance (230V)

Installation of 220V FILTER CARTRIDGE KIT ref. VNCC-03

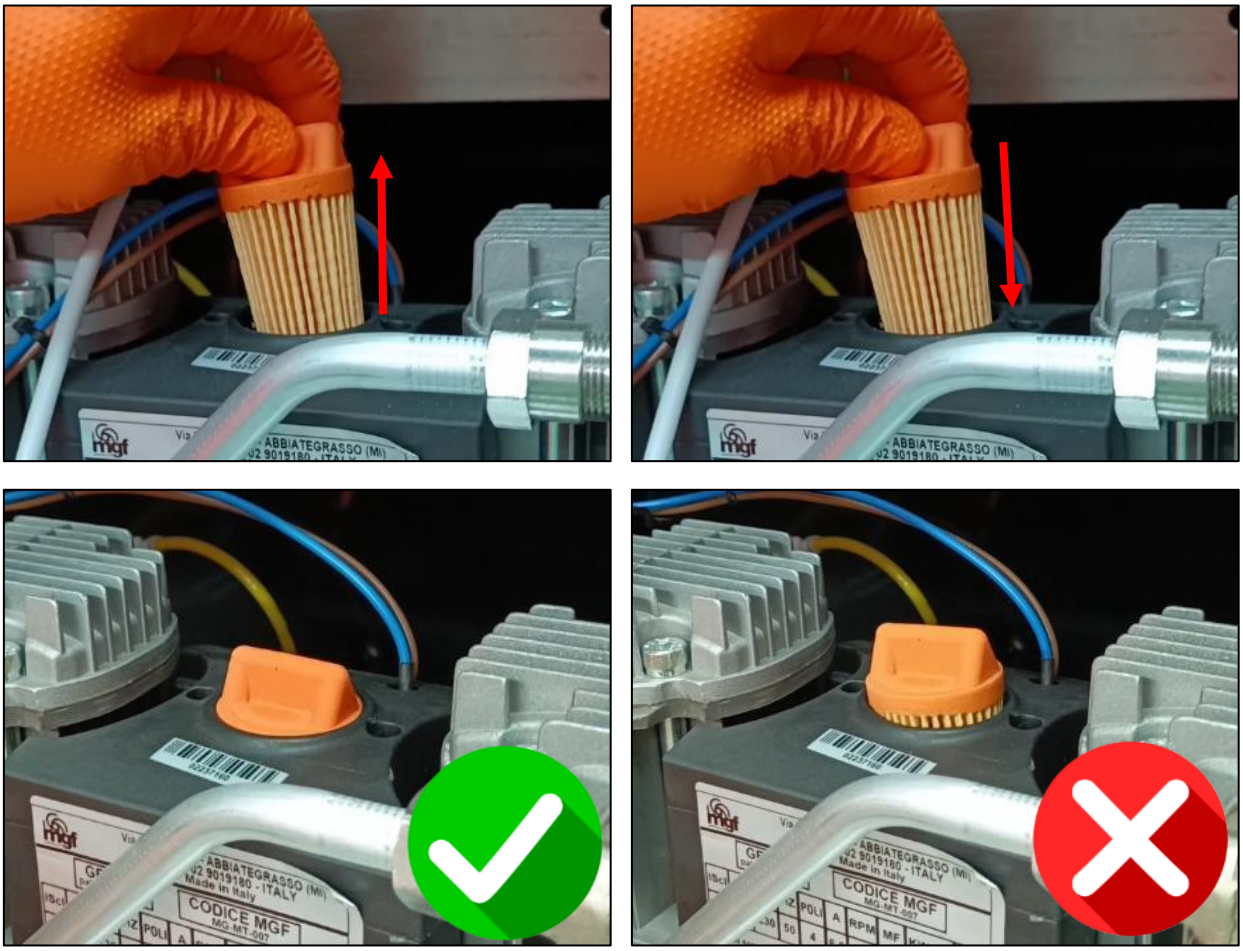
✓ **Safety valve**

- Check that the safety valve is working by activating it a couple of times and seeing that it returns.



✓ **Air filter**

- Replace the air filter by pulling it upwards, inserting it by applying pressure and leaving it in the correct position.



h. Annual compressor maintenance (110V)

Installation of 110V FILTER CARTRIDGE KIT ref. VNCC-05

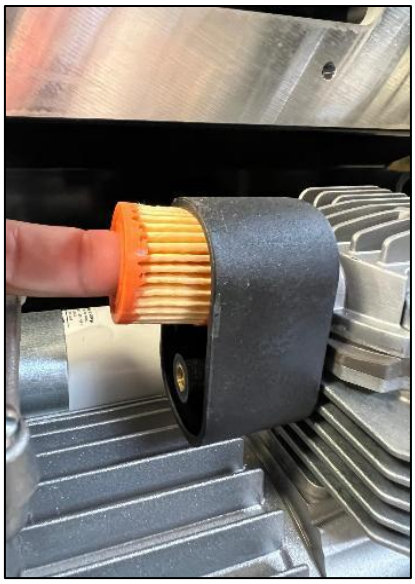
✓ **Safety valve**

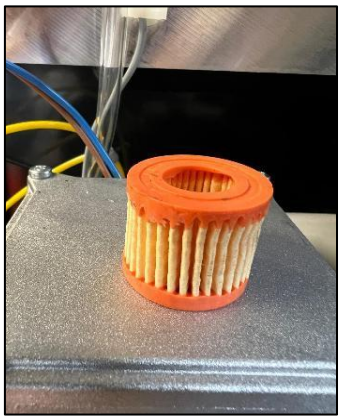
- Check that the safety valve is working properly by activating it a couple of times and checking that it opens and closes.

✓ Air filter

- Turn the cap lock, remove it and you will have access to the filter.


- Remove the filter by pulling it out with your finger.





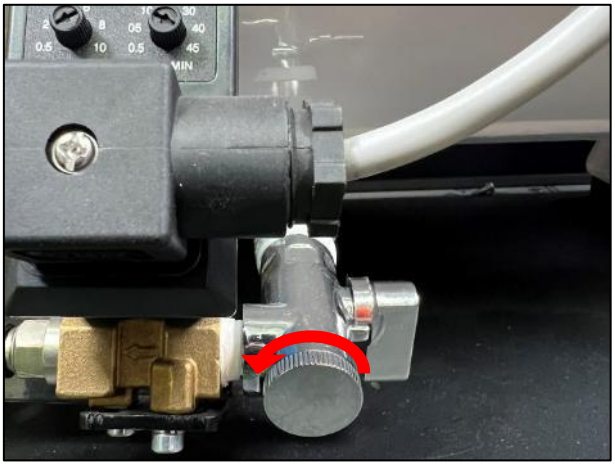
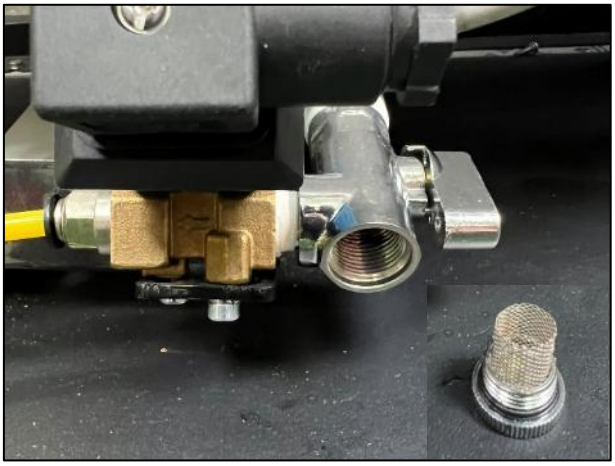
- Replace with the new filter by reversing the process.

i. Bi-annual compressor maintenance (230V)

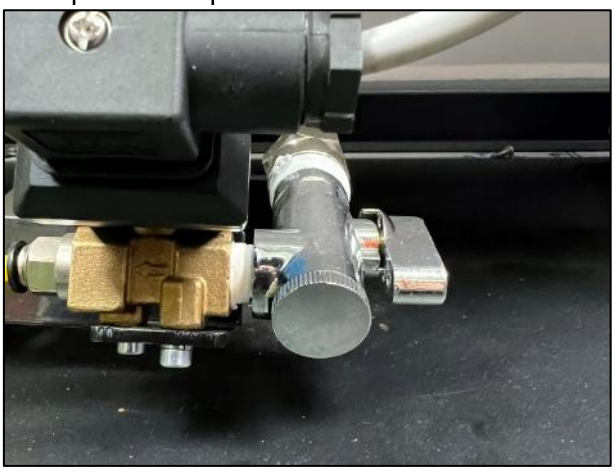
Installation of 220V COMPRESSOR REPLACEMENT KIT ref. VNCC-04

✓ Air shut-off filter

- Close the shut-off valve, remove the metal filter by unscrewing it with a fixed wrench or a pipe wrench, and open the shut-off valve slowly until the air tank is completely empty.

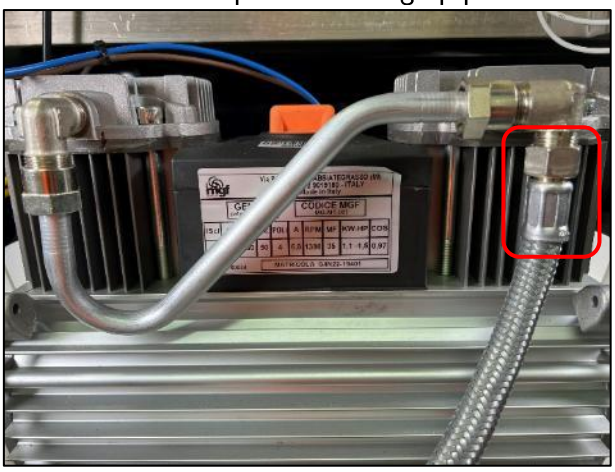
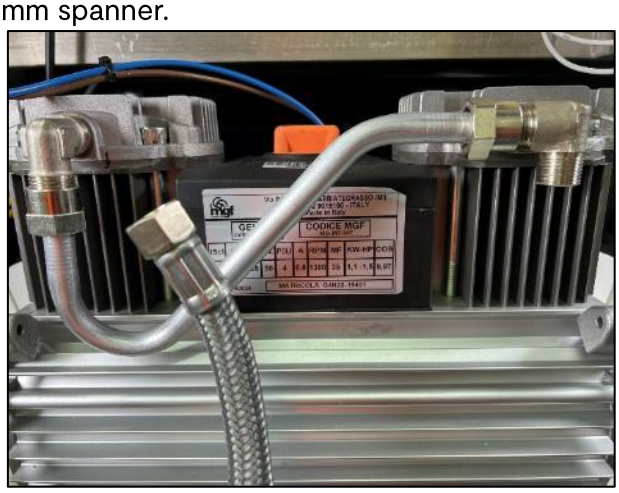



- Clean the metal filter and reassemble the unit in its place. Reopen the shut-off valve.

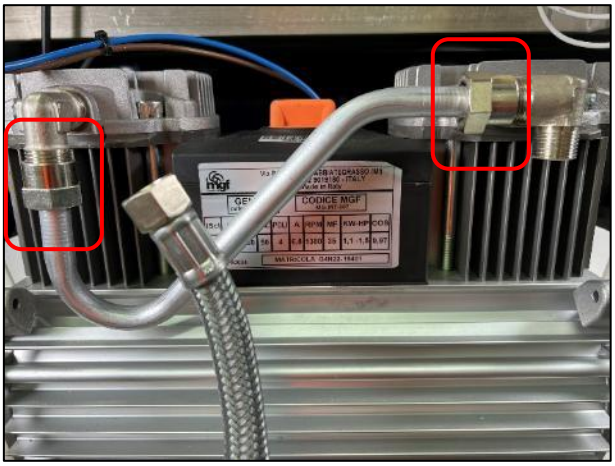
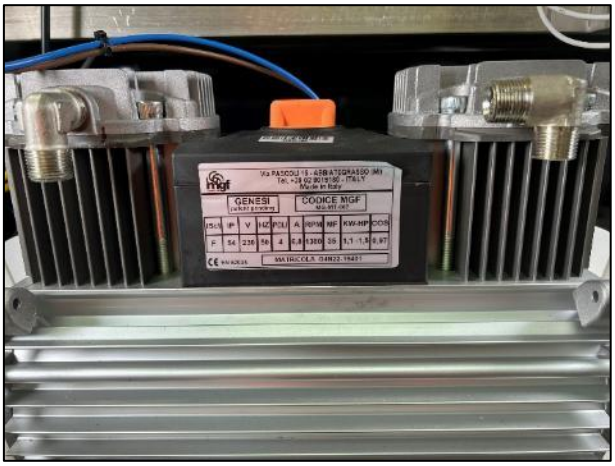



✓ Removing air pipes

- Loosen the compressor charge pipe with a 19 mm spanner.

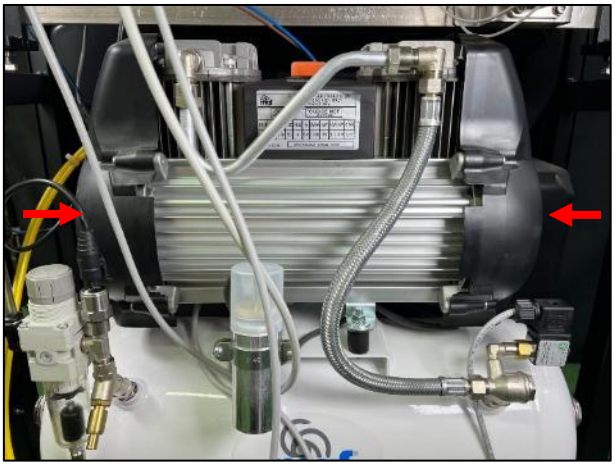
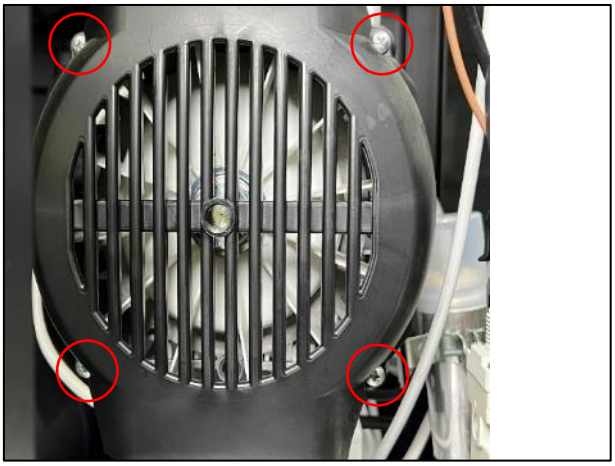



- Loosen and remove the pipe connecting the two cylinders with a 22 mm wrench.

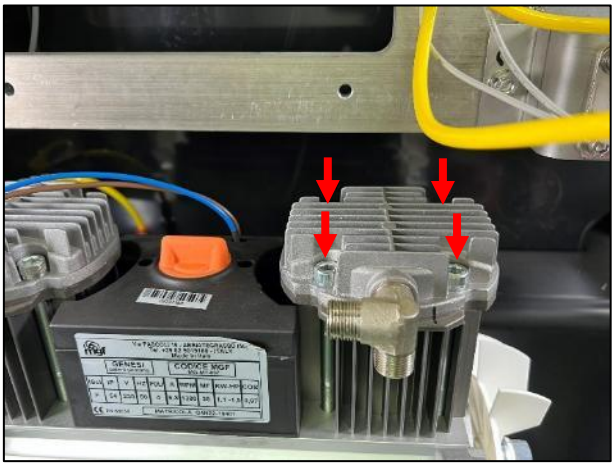
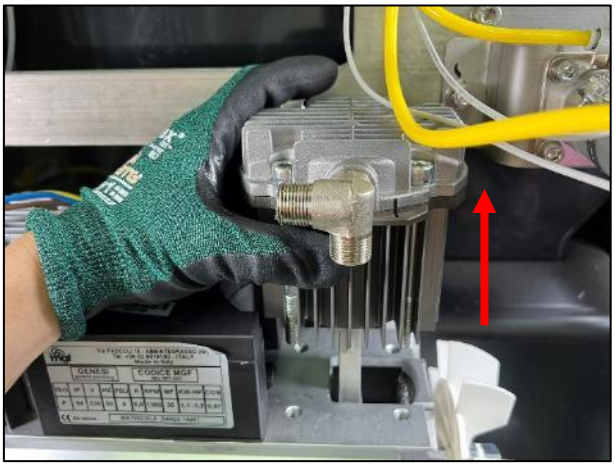
✓ **Removing the fan covers**

- Remove the plastic covers from the fans by removing the 4 Phillips screws that hold them in place.

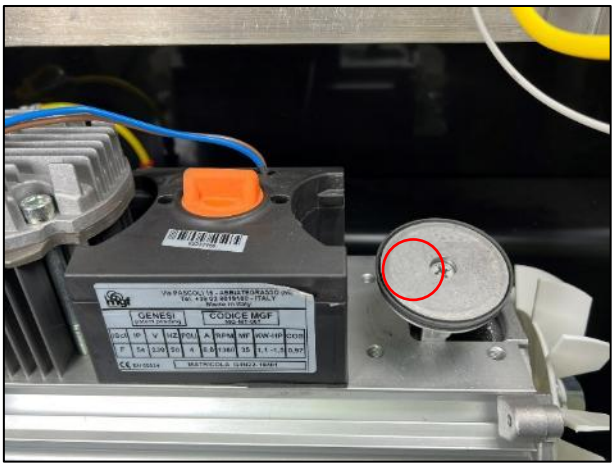
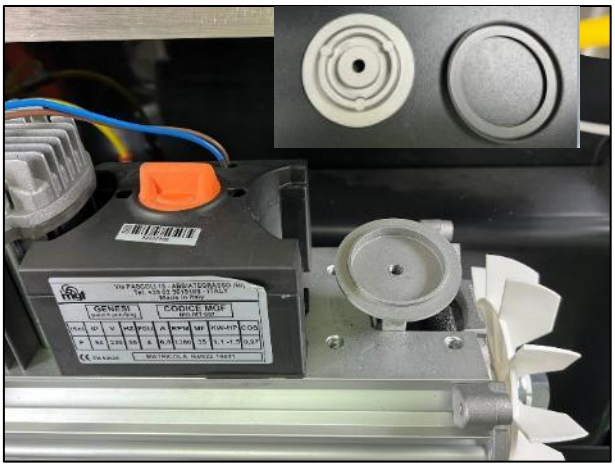



✓ **Removing the cylinders and replacing the piston rings (do one side first, then the other)**

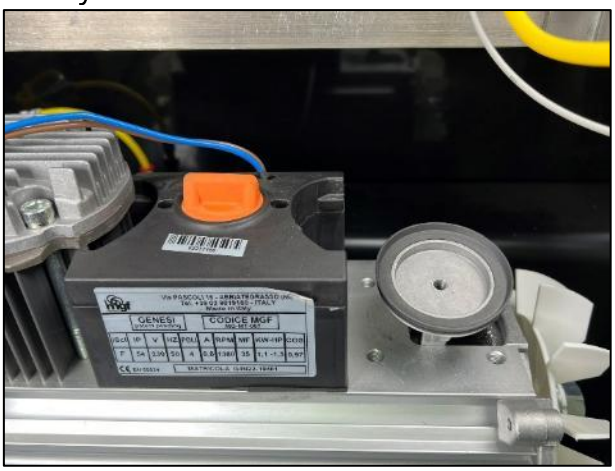
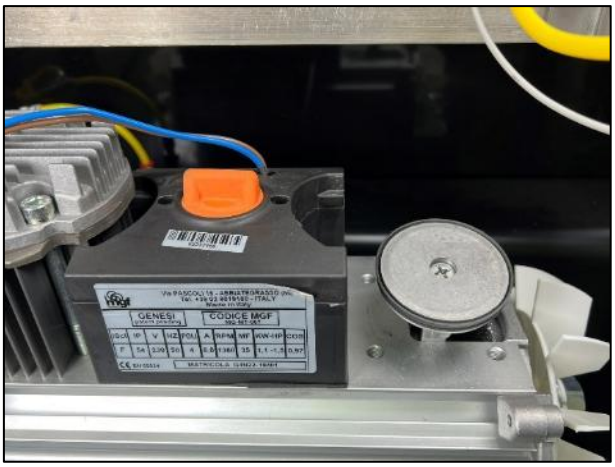
- Loosen the 4 screws with the 6 mm Allen wrench that secure the cylinder and cylinder head to the block. Remove the cylinder block and cylinder head by pulling it upwards.

- Loosen and remove the screw that secures the piston ring. Remove the ring.

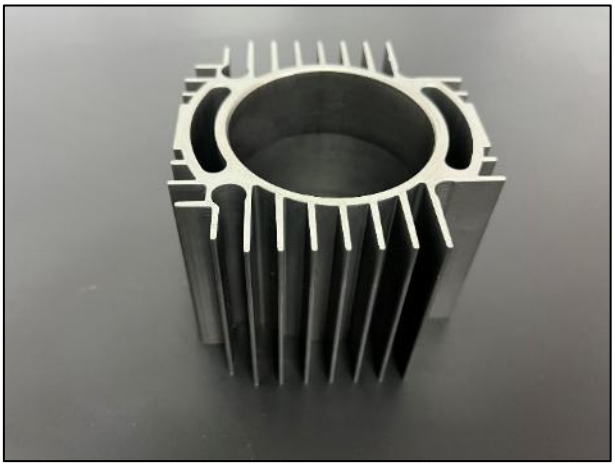



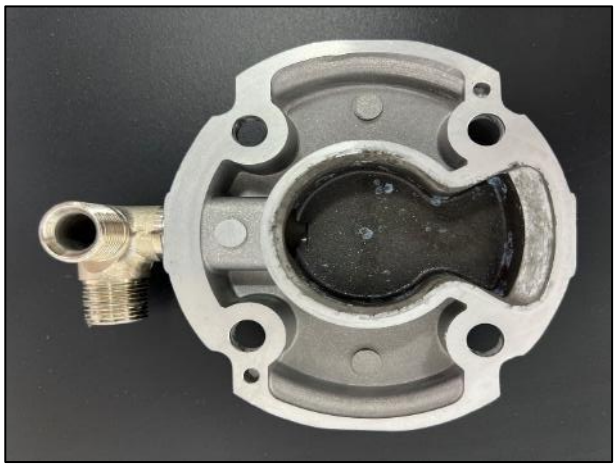
- Install the new segment on the metal part of the piston. Replace the cover and tighten the screw firmly.

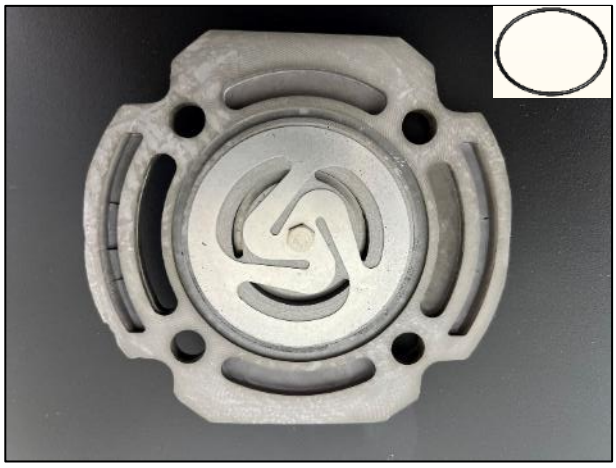
✓ Cylinder head gaskets

- Remove the cylinder head to access the sealing gaskets. Be careful not to lose the centring bolts.

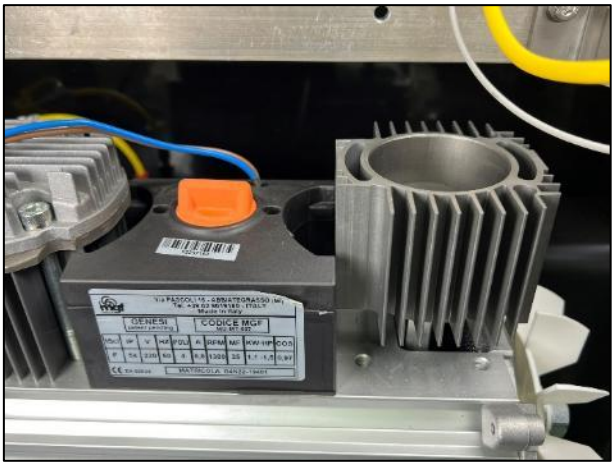


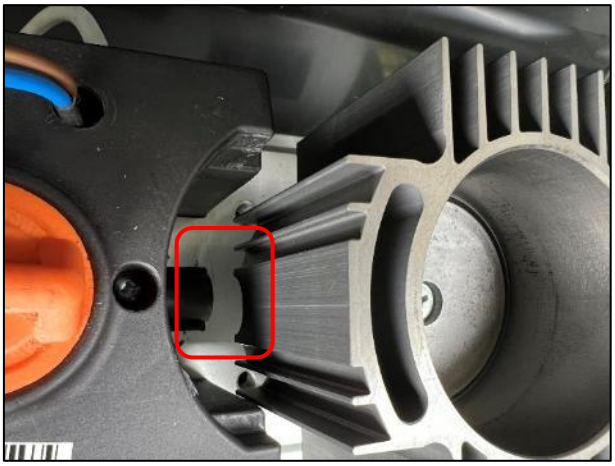



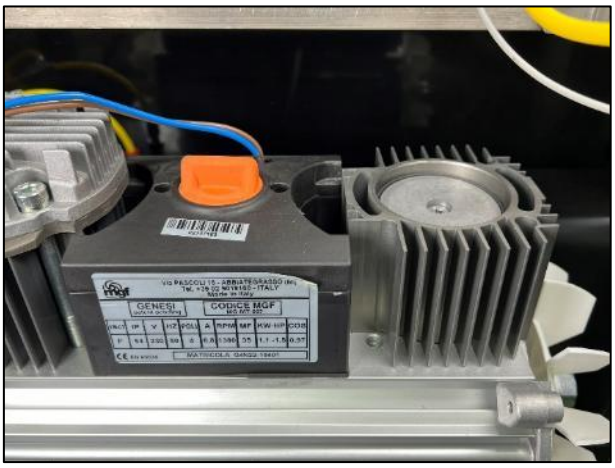
- Carefully remove the gaskets and install the new ones (size 63.22 x 1.78). A little grease can be applied to ensure they are properly seated.

- Insert the cylinder into the piston in the correct position, paying special attention to the piston ring, taking care not to bend or pinch it. Once inserted, perform a test run by turning the propeller to check that the piston moves up and down smoothly.

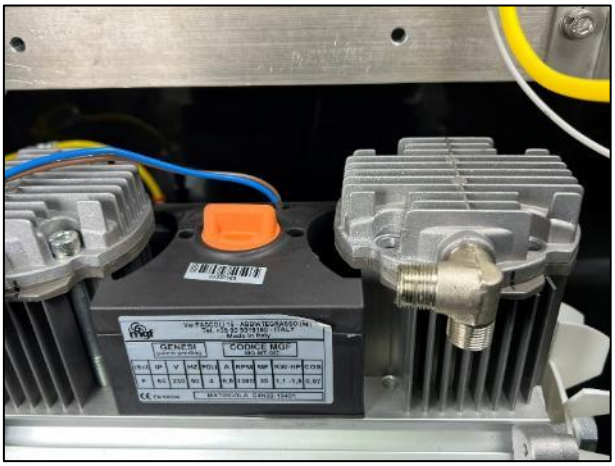


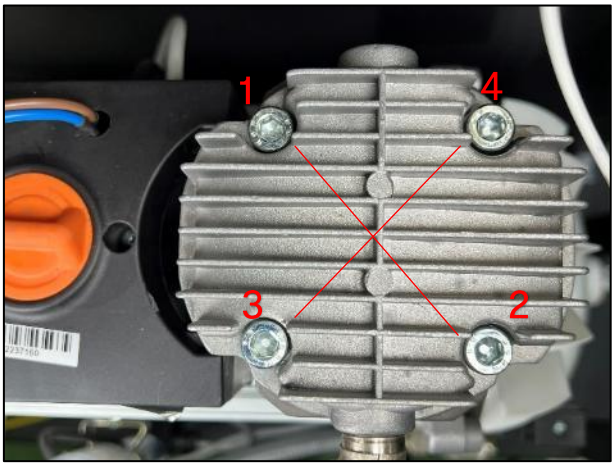




✓ Cylinder head and tightening

- Install the cylinder head in the correct position and tighten the screws crosswise with a torque wrench to a torque of **20 Nm**.

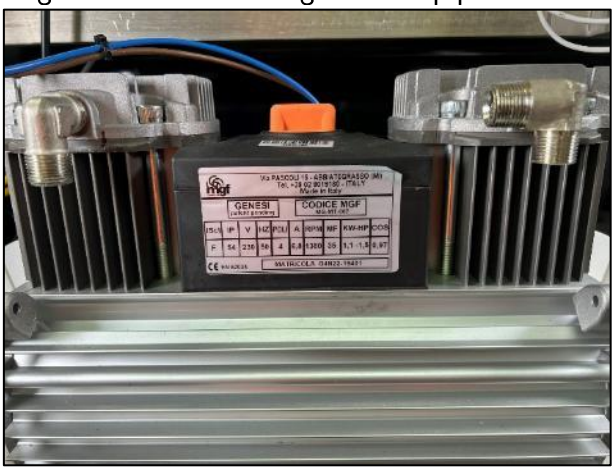


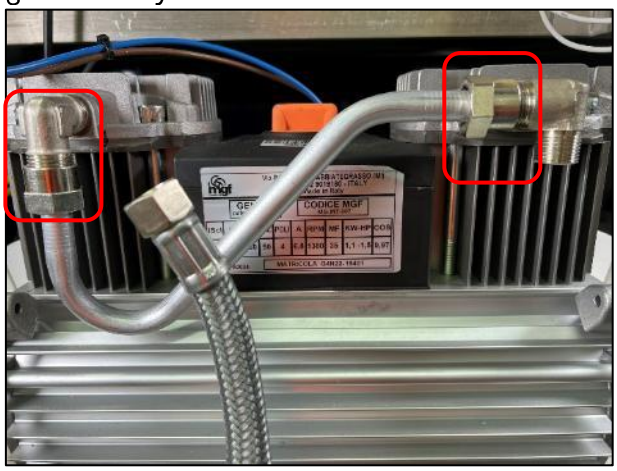


NOTE: Perform the same operations on the remaining cylinder.

✓ Assembling air pipes

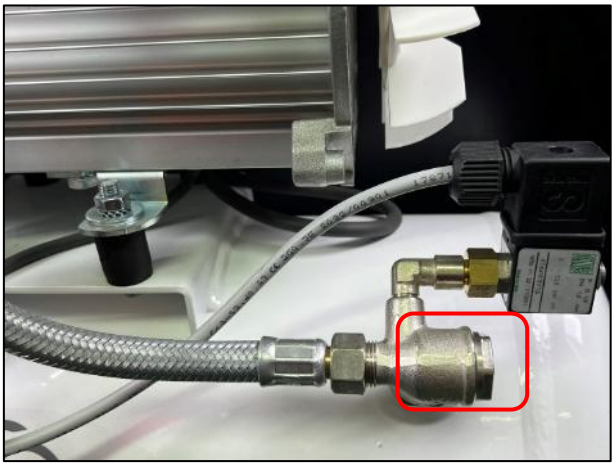
- Once the seals and piston rings have been replaced in the remaining cylinder, reinstall the pipes and tighten. Do not overtighten the pipe connecting the two cylinders.

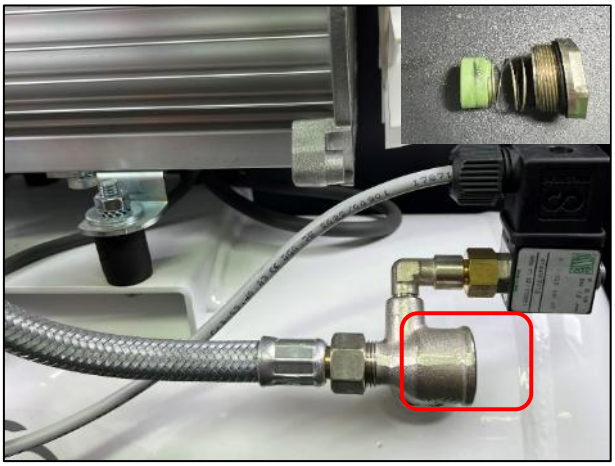


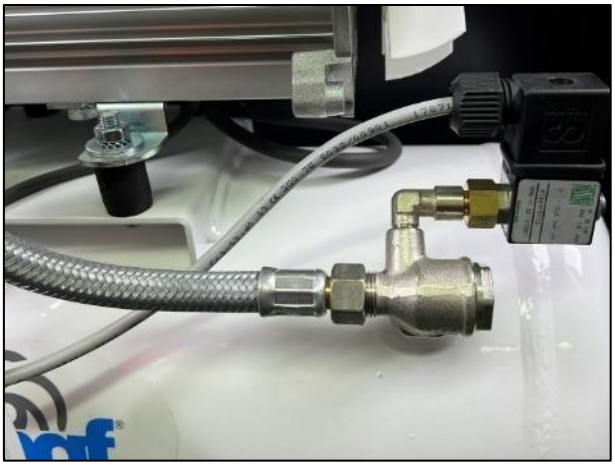


✓ Non-return valve gasket

- Remove the nut with a 22 mm wrench, remove the spring and seal, install the new seal and reassemble. Tighten firmly.

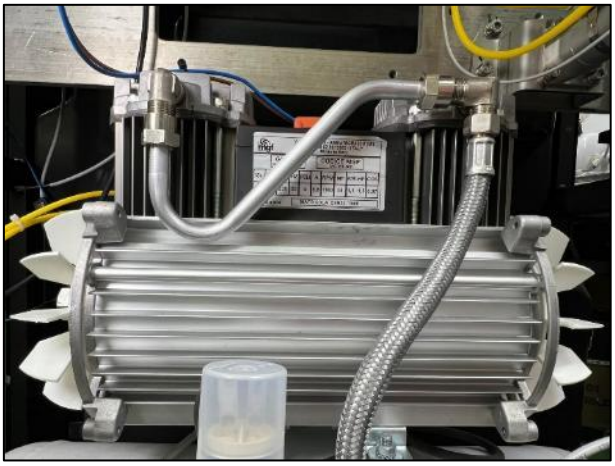




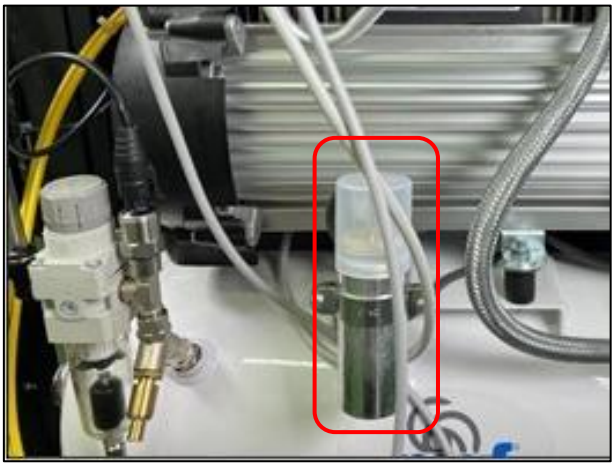
✓ **Fan cover assembly**

- Replace the fan cover and tighten the 4 screws that hold it in place.

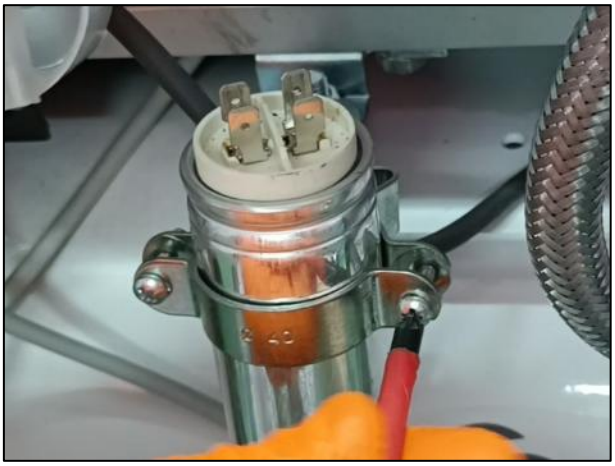
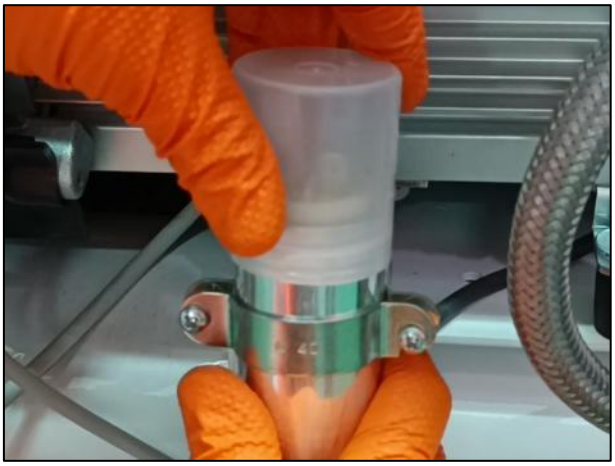



✓ **Capacitor**

- Disconnect the condenser, discharge it by connecting both pins and install the new one.

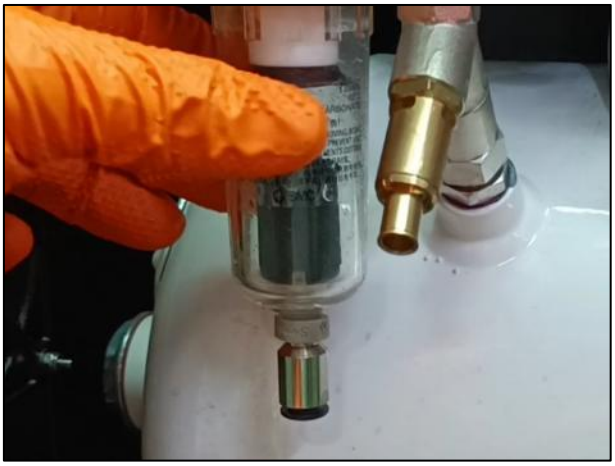



- Loosen the two screws on the clamp that hold the condenser in place and install the new one.

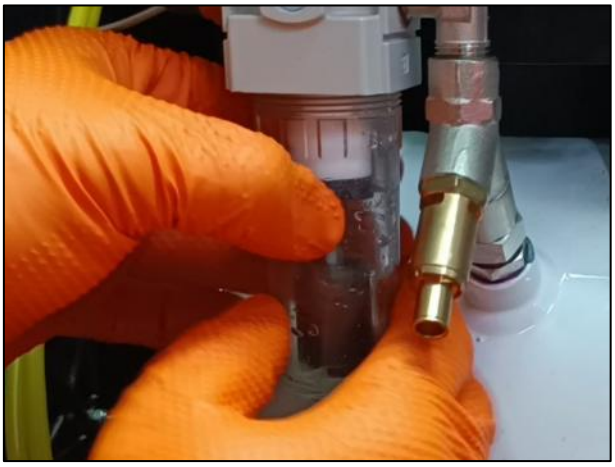



✓ **Water tank seal maintenance unit**

- Disconnect the pipe by pressing on the connector and pulling it out.

- Unscrew the water tank by hand, replace the seal and reassemble. Apply a little Vaseline to the seal on the installation to prevent it from pinching.




NOTE: **Repeat the pressure and charging time test (point k).**

j. Annual compressor maintenance (110V)

Installation of 110V COMPRESSOR REPLACEMENT KIT ref. VNCC-06

k. Machine test (after compressor maintenance)

NOTE: Connect the machine to charge with the COMPLETE MANOMETER inserted between the regulating valve and the outlet pipe to the valve island.

✓ **Minimum working pressure (bars)**

- Note the minimum pressure at which the machine is operating before performing maintenance on the compressor. This is obtained after each service before starting to charge the boiler.

✓ **Maximum working pressure (bars)**

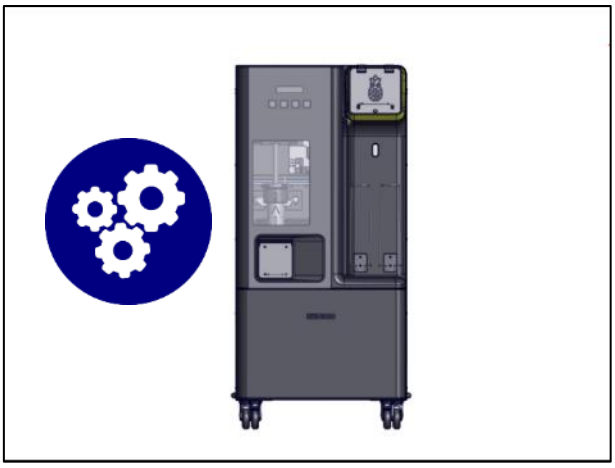
- Note the maximum pressure at which the machine is working before performing maintenance on the compressor. This is obtained after each service when the boiler has already been charged.

✓ **Charging time between cycles (seconds)**

- Note the compressor charging time before maintenance to compare it with the time after maintenance. This is obtained after each cycle and before the next one.

✓ **General operation test and drop of cut fruit into the container.**

- Perform a test cycle and check that the fruit falls into the container correctly.



15 INSTALLATION CHECK LIST

a. No voltage

	Action to be taken	✓	✗	Observations
1.	Remove the upper metal back cover.			
2.	Check the wiring from the sensors (make sure they are all properly connected. All the terminals are correctly inserted into the terminal block.			
3.	Check that the pneumatic pipes are properly connected by trying to insert them gently.			
4.	Check that all sensors are securely fastened.			
5.	Select the correct peeling blade according to the diameter of the pineapples to be used. IMPORTANT: check the configuration box.			
6.	Set the height of the blade that cuts the crest according to the pineapples to be used. IMPORTANT: check the configuration box.			

b. With tension

	Action to be taken	✓	✗	Comments
1.	Connect the machine to the power supply and switch it on. If it does not switch on, check the rear fuse. CONSULT THE TECHNICAL MANUAL.			
2.	Check that the sensor that detects the bucket is working properly. IMPORTANT: This sensor does not always detect the canister without inserting it. * Note: Step 2 should disappear after 20 seconds if there is no canister. *SEE Z26 HOW TO ADJUST/INSTALL THE BUcket PHOTOCELL			
3.	Check all the sensors on the cylinders from the rear while testing the machine with fruit. Check that they are all working and detecting correctly. If a problem arises, check which sensor is not detecting (is lit) by looking at the valve island.			
4	Check that the processed pineapples fall correctly into the container. In the case of slices, make sure they fall on top of each other, without falling diagonally or piling up, which would indicate a poor result in the vat. If the result is not correct, adjust the cylinder speed.			

16 MAINTENANCE CHECK LIST

a. External inspection prior to opening the machine internally (without power)

	Action to be taken	✓	✗	Observations
1.	Check external parts (doors, handles, etc.).			
2.	Check the condition of the blades.			
3.	Check that the fixed blade is tight.			
4.	Check the condition of the nuts/knobs and pusher pin.			
5.	Check the condition of the silicone seal where the linear cylinder moves.			
6.	Check the power cable, switches, selector and fuse holder (if present).			

b. External inspection prior to opening the machine (with power on)

	Action to be taken	✓	✗	Comments
1.	Check machine safety devices (opening all doors).			
2.	Check that the **sensors** are working properly (can and pineapple detection).			
3.	Check the lighting on the display showing the steps to follow, touch screen and internal LED.			

c. Open the machine and inspect the interior (with power on).

	Action to be taken	✓	✗	Observations
1.	Check that all pneumatic pipes are properly connected and do not leak air.			
2.	Check that all sensors are working correctly.			
3.	Check that the cylinders are not leaking air.			

d. Open the machine and inspect the interior (, without power).

	Action to be taken	✓	✗	Observations
1.	Check the wiring from the sensors (make sure they are all properly connected and all the terminals are correctly inserted in the terminal block).			
2.	Check the screws on the most important components (cylinders).			
3.	Check that all sensors are securely fastened.			

e. General maintenance

	Action to be taken	✓	✗	Comments
1.	Clean ventilation fans and machine internally			
2.	Lubricate the silicone seal on the linear cylinder with Vaseline or food-grade grease.			
3.	Lubricate the peeler cylinder guides with food-grade grease.			
4.	Lubricate the ridge push cylinder guides with food-grade grease.			
5.	Lubricate linear cylinder guides.			
6.	Tighten electrical connection terminals.			

f. Test on machine (before compressor maintenance)

	Action to be taken	✓	✗	Observations
1.	Minimum working pressure (bars)			
2.	Maximum working pressure (bar)			
3.	Charge time between cycles (seconds)			

g. Annual compressor maintenance (230V)

	Action to be taken	✓	✗	Comments
1.	Install VNCC-03 maintenance kit.			

h. Annual compressor maintenance (110V)

	Action to be taken	✓	✗	Comments
1.	Installation of maintenance kit VNCC-05.			

i. Bi-annual compressor maintenance (230V)

	Action to be taken	✓	✗	Comments
1.	Installation of maintenance kit VNCC-04.			

j. Quadrennial compressor maintenance (110V)

	Action to be taken	✓	✗	Comments
1.	Installation of maintenance kit VNCC-06.			

k. Machine test (after compressor maintenance)

	Action to be taken	✓	✗	Observations
1.	Minimum working pressure (bars)			
2.	Maximum working pressure (bar)			
3.	Charge time between cycles (seconds)			
4.	General performance test and drop of cut fruit into the container.			

17 ZUMMO CLOUD

In order to connect the machine to Wi-Fi, certain requirements must be met:

1. Have the ZummoCloud app installed

Apple store

Google play

2. Have a stable 2.4G Wi-Fi connection. It must not be free Wi-Fi or a gateway. We recommend testing the Wi-Fi connection before connecting the machine to ensure it is working correctly.

a. User creation

Once you have downloaded the application.

1. You will need to open it and create a user account.
2. Click on "Register" to begin the user creation process.

2. Registration

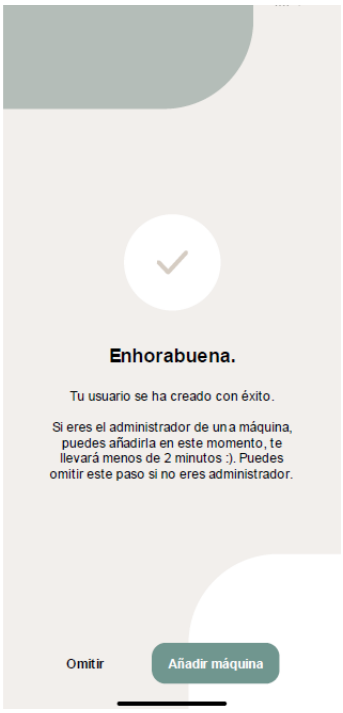
Fill in the form

Next, you will be presented with a form where you must enter your information. Fill in all the fields to continue the process. Make sure that the email address you provide is valid and that your password is secure. To do this, it must contain at least one capital letter, one lowercase letter and one number. You must also accept the **Privacy Policy.**

Click on register

Once you have completed all the required fields, review the information you have provided to ensure that it is correct. Then click on the "**Register**" button at the bottom. The application will validate that everything is correct. If not, it will inform you if something is incorrect.

3. Complete user creation



Completion

If everything is correct, this screen will appear informing you that the process is complete.

Next steps

When you are finished, you can choose to register a machine or skip the process.

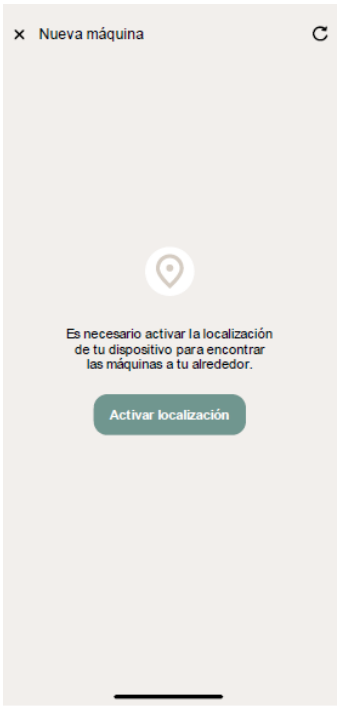
If you decide to add a machine at this point, you will begin the machine registration process.

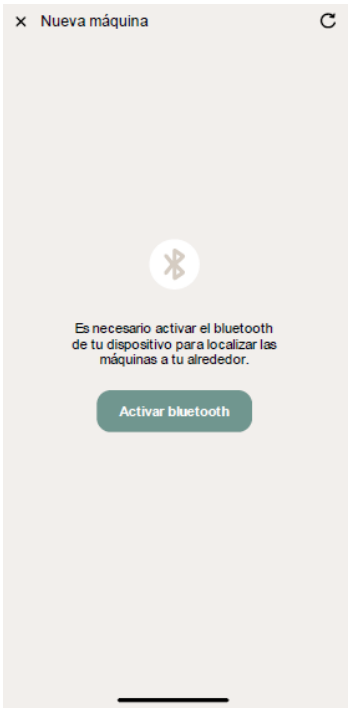
If you skip the process, you will be taken to the machine list view.

b. Add machine

Click on it to begin the process of registering and synchronising a machine.

1. Preliminary considerations:





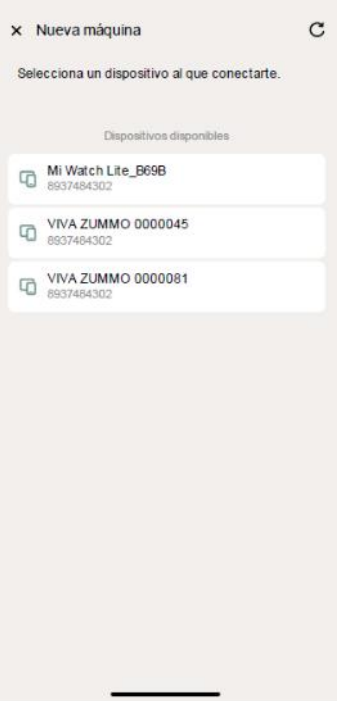
Before starting the machine registration process, you will need to have **geolocation (location)** enabled, as well as Bluetooth on your mobile device and your **Zummo machine** turned on.

If geolocation or **Bluetooth** is not enabled, the app will inform you of this, allowing you to enable it from your device settings by tapping the button that accompanies the notification.

If they are enabled, the app will ask for permission to use your location. You must grant location permissions to the mobile app so that it can detect the machines around you.

These services must be active throughout the entire process.

2. Machine selection

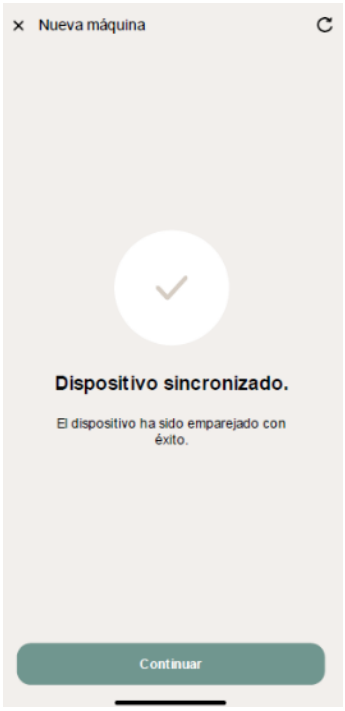


If everything is as indicated, the app will display the machines detected around you and you can start registering and synchronising your machine.

Tap on the machine you want to synchronise to start the process.

If you cannot find your machine nearby, you can force the search again by tapping the top right button.

3. Bluetooth synchronisation



After tapping on a machine, the app will start an automatic synchronisation process.

This process may vary in length depending on the device.

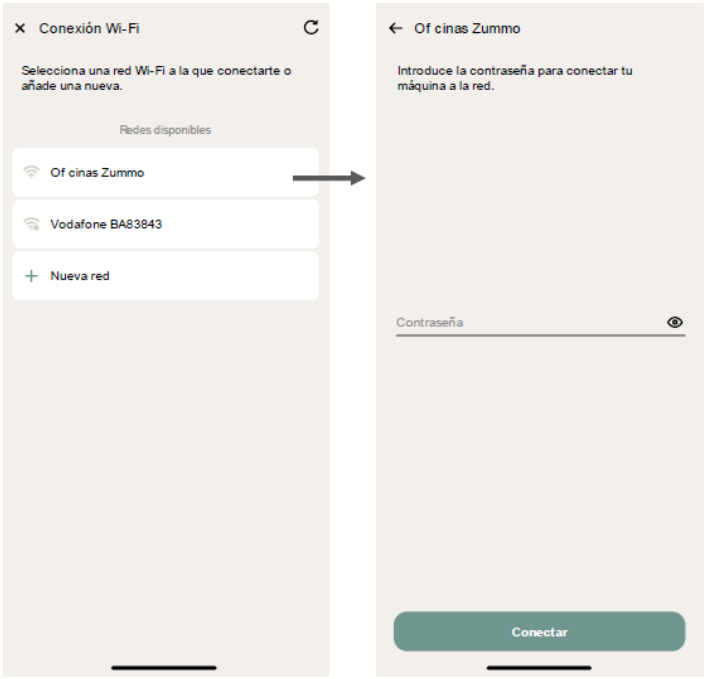
If Bluetooth synchronisation has been established successfully, the

app will inform you.

To proceed to the next step, click on the button below

Device synchronised. "Continue".

4. Selecting Wi-Fi

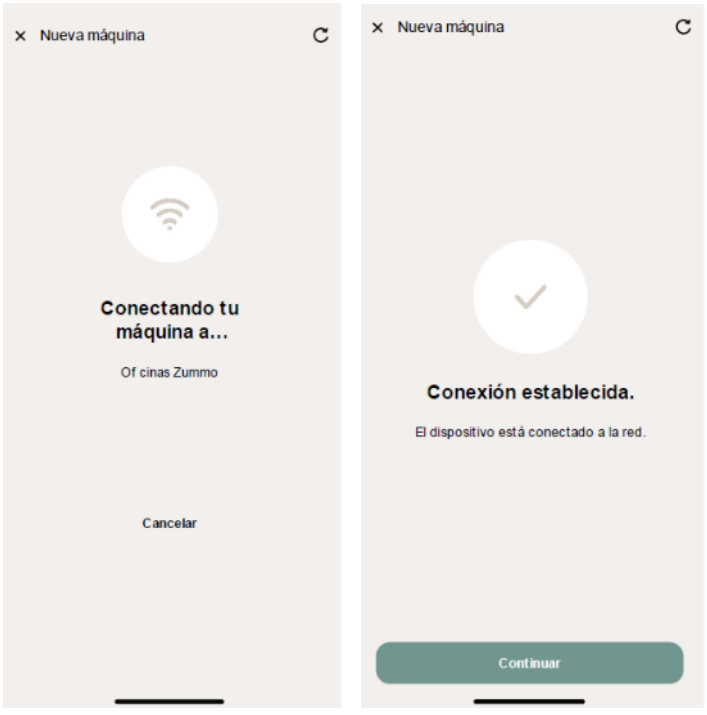


After Bluetooth synchronisation, a view will be displayed showing the Wi-Fi networks detected in your vicinity.

Tap on one of the networks to connect your Zummo machine to it and enter the network password.

If the Wi-Fi line you want to connect the machine to does not appear, you can force it to load again by clicking on the icon in the upper right corner.

5. Wi-Fi connection



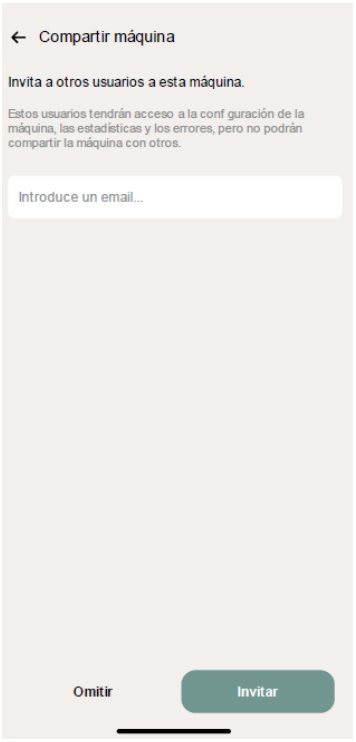
After selecting a Wi-Fi network, an automatic connection process will begin.

This process may take some time depending on the device and the Wi-Fi network.

If the Wi-Fi connection has been successfully established, the app will inform you.

To proceed to the next step, click on the "Continue" button at the bottom.

6. Customisation



1. Name

Select a name for the device.

This will allow you to identify it and distinguish it from the rest in the machine list.

This step can be adjusted later from the machine's settings, provided you are the machine administrator.

2. Share machine

Finally, share the machine with other users. Enter the email addresses of the users with whom you want to share the machine and click "Invite".

This will allow these users to view the machine's statistics.

This step can be skipped and done/adjusted later from the machine's settings, provided you are the machine's administrator.

7. Finish

After registering and customising the machine, the process will be completed and you will be notified.

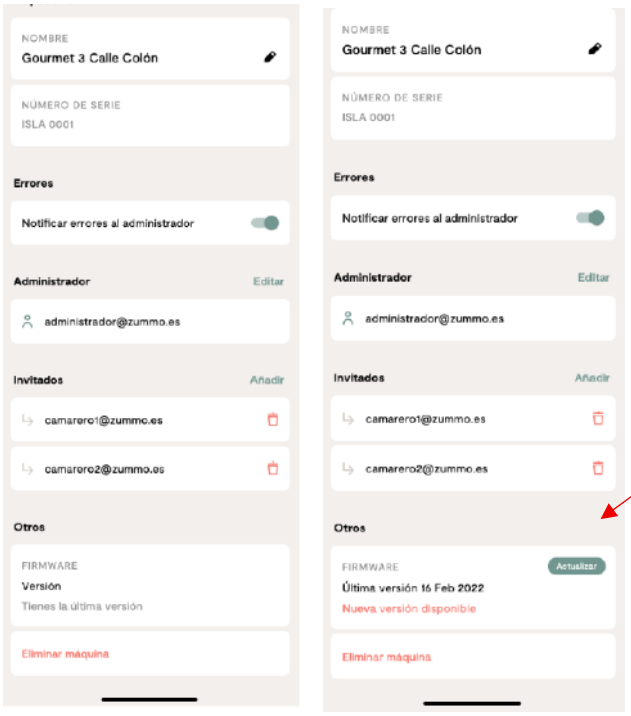
From this point on, you can locate your machine in the Initial machine list.

c. machine information

You can view information about the machines at any time by clicking on each one.
Clicking on one of them in the list will take you to its details.
There you can see its **status (active/error)** as well as the activity of the last few days separated by:
Number of cycles
Errors

d. Machine configuration

i. Firmware



From this section, you can check the machine's firmware version.

This section will inform you whether you have the latest firmware installed or not.

All users can view this information.

Firmware update

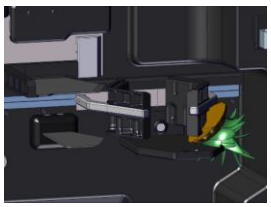
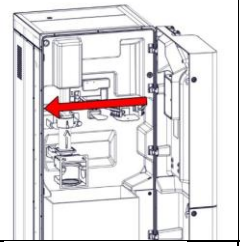
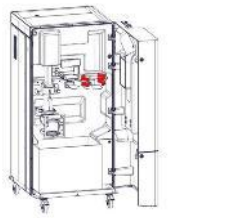
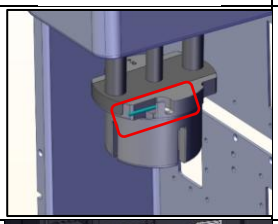
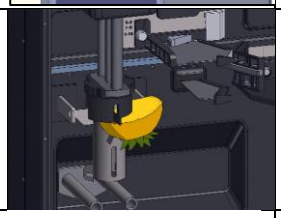
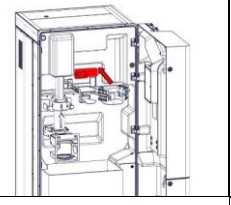
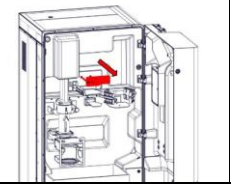
If you do not have the latest firmware version, this section will allow you to download the latest version.

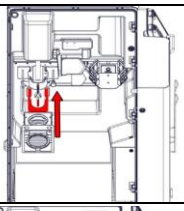
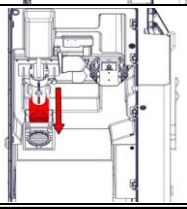
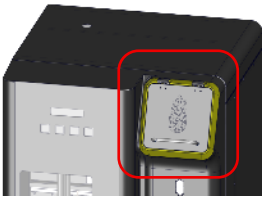
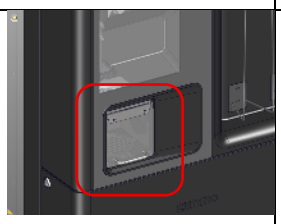
To update the version, press the "update" button in the firmware section.

Only the machine administrators (those who registered it) can perform this action.

e. List of errors

Below is a list of all the errors that may be received through the APP and how to solve them

Error	Initial check		Check 2
Right cylinder position error cuts crown and pineapple base.	Check that no piece of ridge has been left between the claws and the machine, preventing the linear cylinder from reaching its initial position.		Check the sensor that detects that the linear cylinder is in the initial position (right). Section 9 of this manual.
Left position error of the cylinder cutting the crown and pineapple base.	Check that the linear cylinder can move freely to the left. There is nothing mechanical preventing it from moving.		Check the sensor that detects that the linear cylinder is in the initial position (left). Section 9 of this manual.
Error opening claws to pick up pineapple	Check that the claws can be opened manually without any mechanical impediment.		Check the sensor that detects that the claws are open. Section 9 of this manual.
Upper position error on peeling cylinder	Check that the pusher pin is correctly installed and turned.		Check the sensor that detects that the peeling cylinder is retracted (up). Section 9 of this manual.
Lower position error of peeling cylinder	Check that the blade cylinder is properly installed and that there are no pieces of pineapple preventing the cylinder from reaching the bottom.		Check the sensor that detects when the peeling cylinder is extended (down). Section 9 of this manual.
Error pushing crowns in retracted position	Check that the crest pusher cylinder can move forward and backward freely.		Check the sensor that detects that the crest pushing cylinder is retracted (inside). Section 9 of this manual.
Error pushing crowns in extended position	Check that there are no pieces of pineapple preventing the pusher from extending completely.		Check the sensor that detects that the crest push cylinder is extended (out). Section 9 of this manual.

Slice/chunk/stick/block Retracted position cylinder error	Check that the slice blade or stick tray can move freely and extend completely.		Check the sensor that detects that the slice/stick/chunk/block cylinder is retracted (in). Section 9 of this manual.
Extended position error of the cylinder slices/chunks/sticks /block	Check that the slice blade or stick tray can move freely inwards and completely.		Check the sensor that detects that the slicing/sticking/chunking/blocking cylinder is extended. Section 9 of this manual.
No pressure variation detected in 10 seconds	Press the compressor reset button.		Electrically check the compressor. It should be receiving power via its relay.
Main door open error	Check that the central door is completely closed		Check the sensor and magnet that detects when the door is closed. Section 5b of this manual.
Error: pineapple insertion door open	Check that the pineapple door is completely closed.		Check the sensor and magnet that detects when the door is closed. Section 5a of this manual.
Error: can insertion door open	Check that the can insertion door is completely closed.		Check the sensor and magnet that detects when the door is closed. Section 5c of this manual.