

USER MANUAL

EGG shell peeling machine

TMW 0 1



(created Nov. 20, 2020)

YAMATO MFG

Introduction

Thank you for purchasing an automatic egg shell peeling machine model **TMW01**.

This user manual contains instructions on proper ways of operating the machine, performing its diagnostics, maintenance, and cleaning.

To achieve full performance of the machine, as well as to ensure its proper and safe functioning, make sure to fully read, understand and follow this user manual.

We welcome user opinions regarding the machine's performance – feel free to communicate them to our company or your dealership.



Please save this user manual for future references or for instances of performing maintenance or servicing of the machine.

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1. Safety instructions



To safeguard health of operators and other persons that may be affected by the machine's operation, as well as to prevent any damage to property that may result from improper use of the machine, ensure full compliance with the following safety instructions and warnings:

 WARNING	To indicate instances of possible death or other serious injuries.
 CAUTION	To indicate instances of possible bodily harm or physical damage to property.

Classification of alert infographics:

	To indicate a prohibition.
	To indicate a mandatory action.



	Use only AC 110V electric supply. Failing to comply can cause a fire, an electric shock or malfunction of the machine.
	Do not use multi-outlet extension cords. Having multiple electric appliances connected to an electric grid via a single multi-outlet extension cord can lead to overheating, or cause a fire. Make sure to plug the machine into a dedicated outlet.



WARNING

	Install a ground connection. Do not connect a ground wire to gas or water pipes, lightning rods and/or telephone ground wires. Insufficient ground connection can cause an electric shock. Installation of a ground connection must be performed by a qualified electrician.
	Do not touch the plug or other electric parts of the machine with wet hands. Failing to comply can cause an electric shock.
	Dispose the machine through a specialized service contractor or a nearest dealership. Disregarding this can result in unforeseen accidents.
	Do not use damaged and/or worn-out electric cables, power plugs or loosened outlets. Disregarding this can cause a short circuit, electric leakage or over-heating resulting in an electric shock and/or a fire.
	Do not perform any of the following actions to the power cable: damaging, transforming, stretching/bundling/bending excessively. Also, placing a heavy load on the cable and/or squeezing it can result in a fire or an electric shock.
	Do not hold power plug by its cable when unplugging. Rough handling of the power cable and the plug can damage the cable, and result in a short circuit which can cause an electric shock and/or a fire.
	Do not use flammable sprays near the machine. This can cause a fire (generated at electric contact points).
	Do not pour water onto the machine. This can damage its electric insulation, and cause an electric shock or a fire.
	Dust attached onto the surface of the power plug (especially prongs and prongs' attachment points) can result in decreased electric insulation, and cause a fire. Make sure to thoroughly wipe off any dust.



WARNING

	Ventilate working room thoroughly with the machine turned OFF if any flammable gas is leaking. Disregarding this can cause sparks on electric terminals, causing an explosion, fire and/or burns.
	Make sure to disconnect the machine from electric supply when performing any actions inside the control box. Performing any actions inside the control box while the machine is turned ON can cause an electric shock.
	Check monthly if the Main power switch functions properly. Continuing to use the machine with a faulty breaker can cause an electric shock due to a short circuit.



WARNING

	Do not place any containers with water and/or other objects onto the machine. Dropped objects can cause injuries, while spilled water can cause electric leakage, short circuits or an electric shock from damaged electric insulation. Foreign objects fallen unnoticed between the Rollers can cause a blockage, and seriously damage the machine.
	Place the machine on a flat and levelled surface. If disregarded, the machine can overturn, and cause injuries.
	In case of reselling the machine or transferring ownership thereof, make sure to provide a copy of this user guide to a new owner for proper and safe operation, maintenance and servicing.

2. Specifications

Type: TMW01

External dimensions: Width 22 cm x Height 42 cm x Depth 50 cm

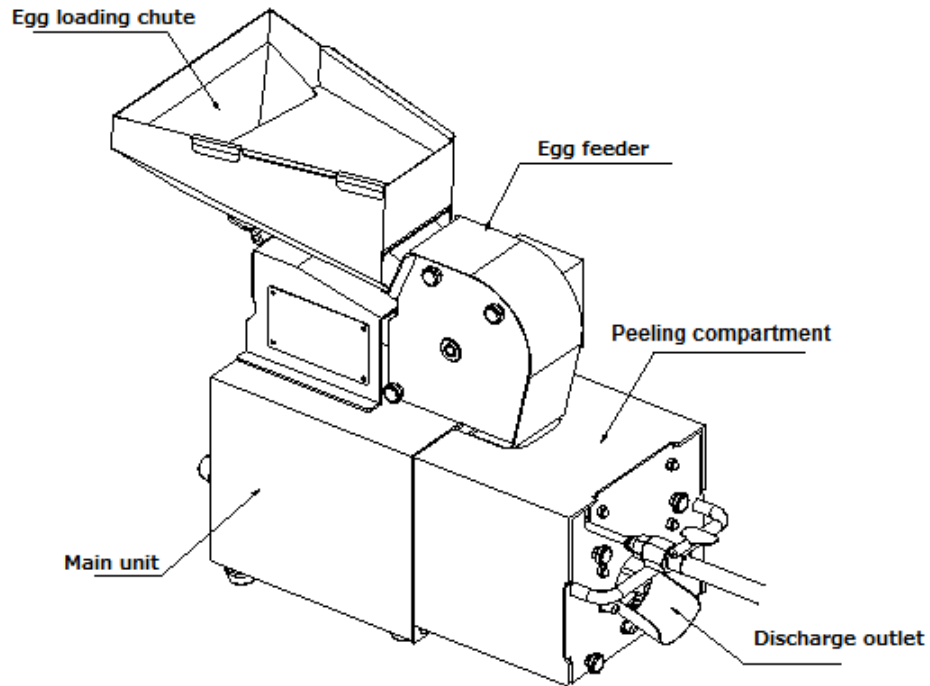
Power supply Voltage: AC 100V 50 Hz / 60 Hz

Total weight : 14 kg

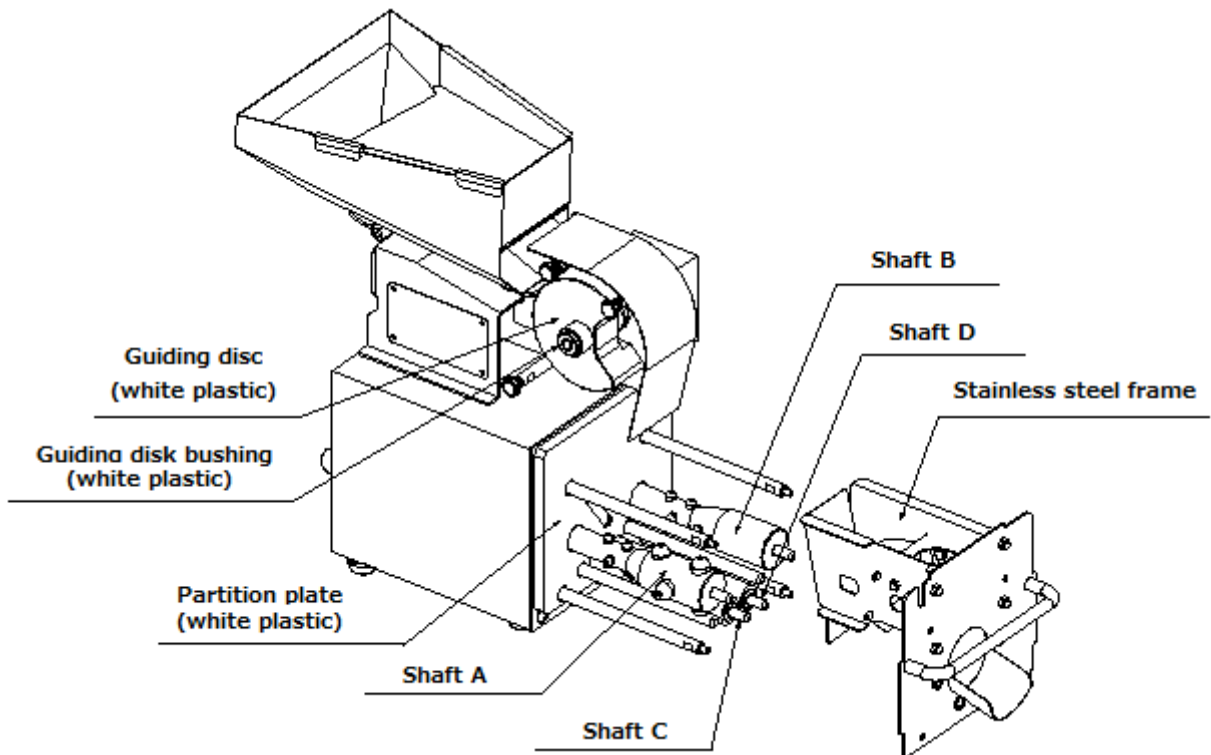
Power consumption: 49W / 50 Hz; 53W / 60 Hz

3. Component description

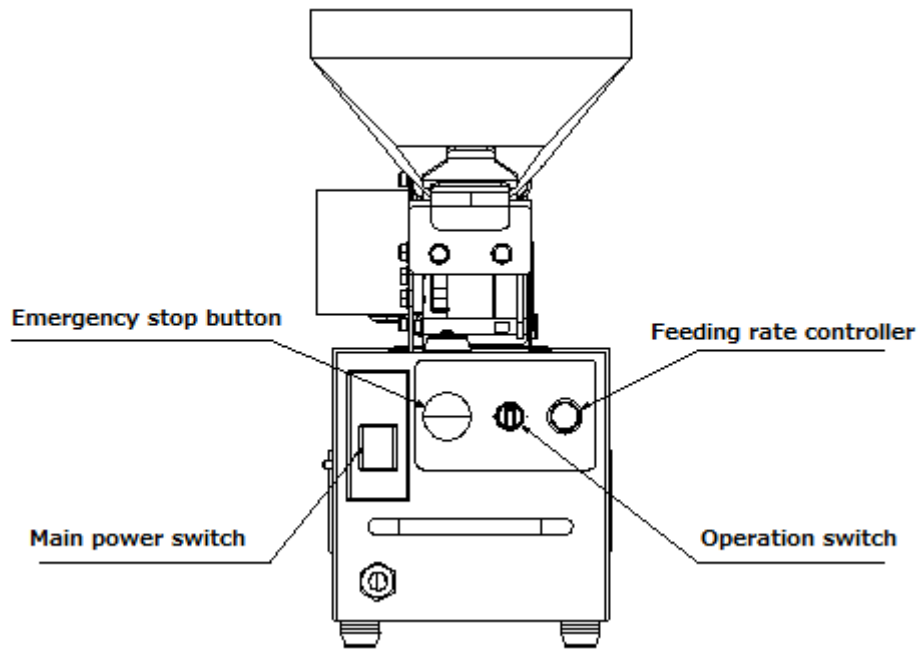
General view



Detailed view



Back side view (control elements)



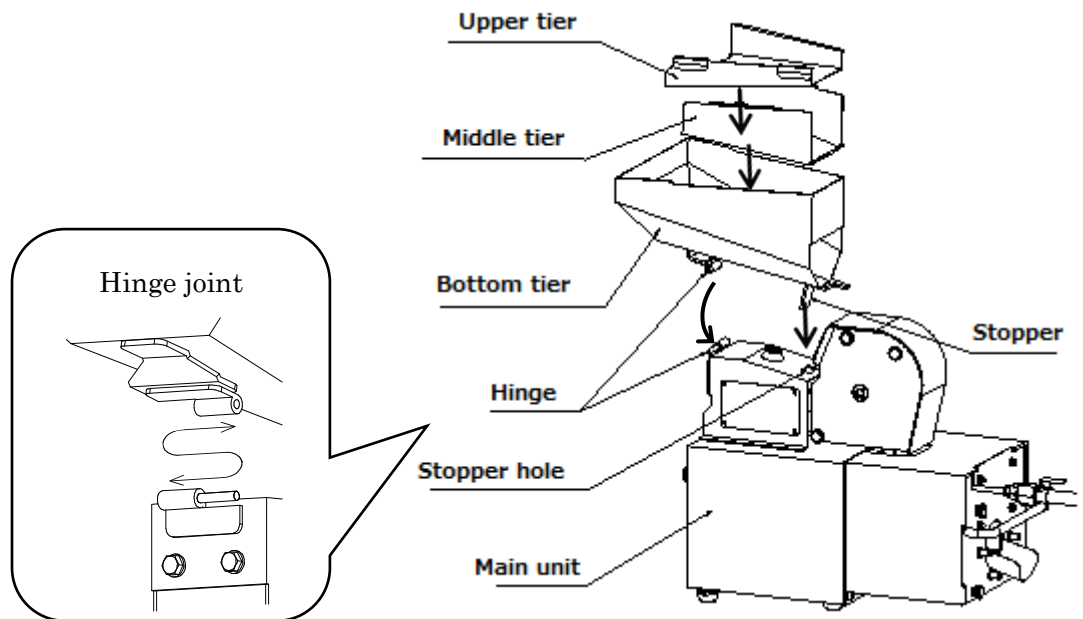
4. Set up procedures

1. Mount the Loading chute on top of the main unit.

The Loading chute has a 3-tier structure: Upper, Middle and Bottom.

Assemble the Loading chute according to the drawing below.

Start assembling the Loading chute with fitting its bottom tier onto the main unit by coupling together their hinges, and inserting the bottom tier's vertical stopper into a hole on the main unit.

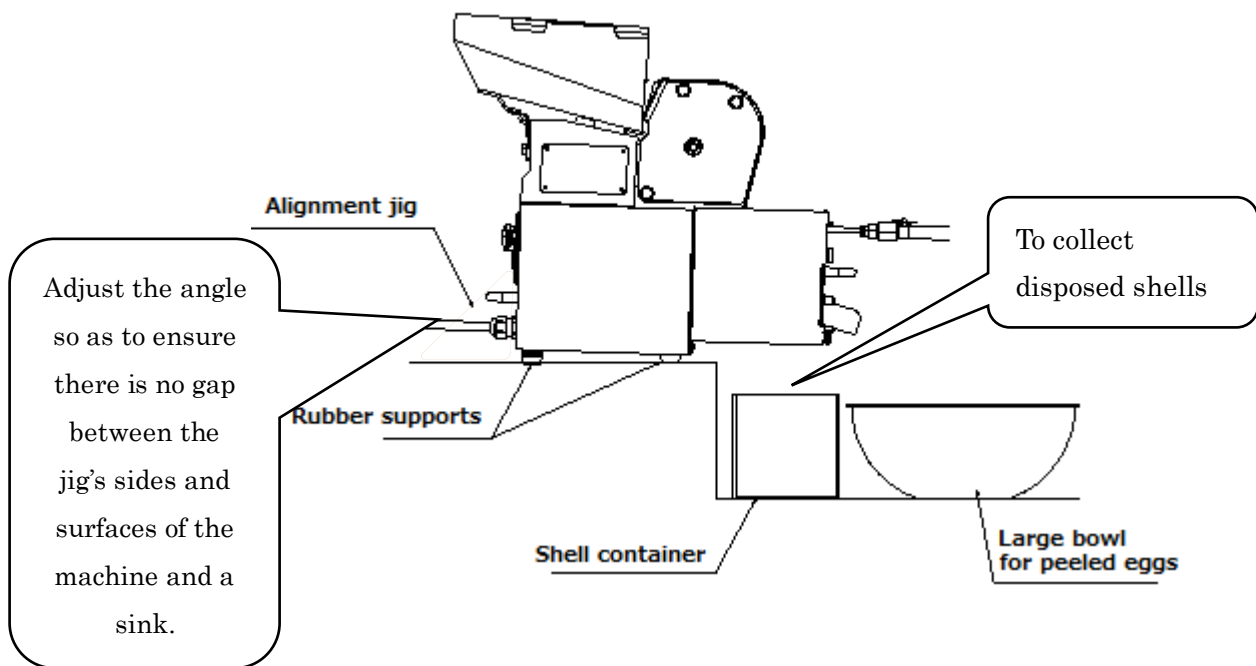


2. Place the main unit on the edge of a flat sink, and adjust the machine's angle using a metallic triangle-shape alignment jig supplied with the machine.

For the best performance the main unit of the machine should be placed on the surface at a **2 degree angle**.

The machine's angle relative to the surface it is installed on can be adjusted by changing the length of rubber supports on its bottom: remove a screw in the center of a rubber support, and change the number of round washers inserted between the rubber support and the main unit.

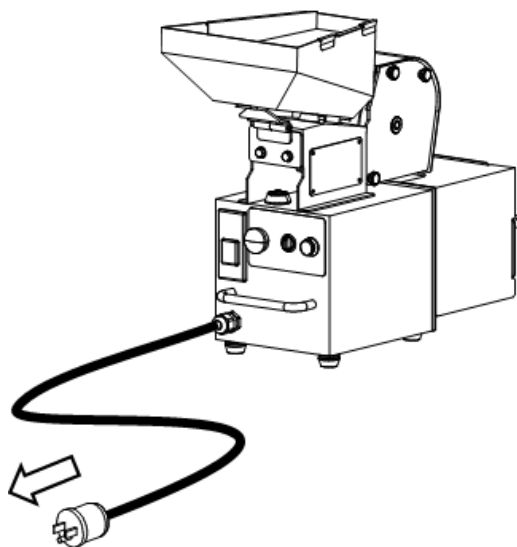
3. Use one large bowl for collection of peeled eggs, and a smaller container for discarded shells. Place them as shown in the drawing below:



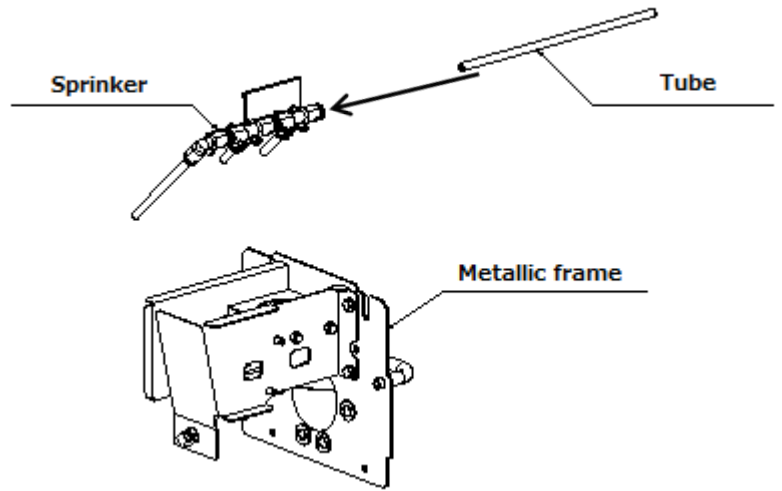
4. For operation the machine requires an electric supply of 100V AC, and a constant flow of running water.

The machine's electric plug is equipped with a grounding connection. For electric supply, please use an electric outlet with a grounding connection. If an outlet with a built it grounding connection is unavailable, connect the grounding to the machine's housing.

5. Insert the machine's plug into an electric outlet.



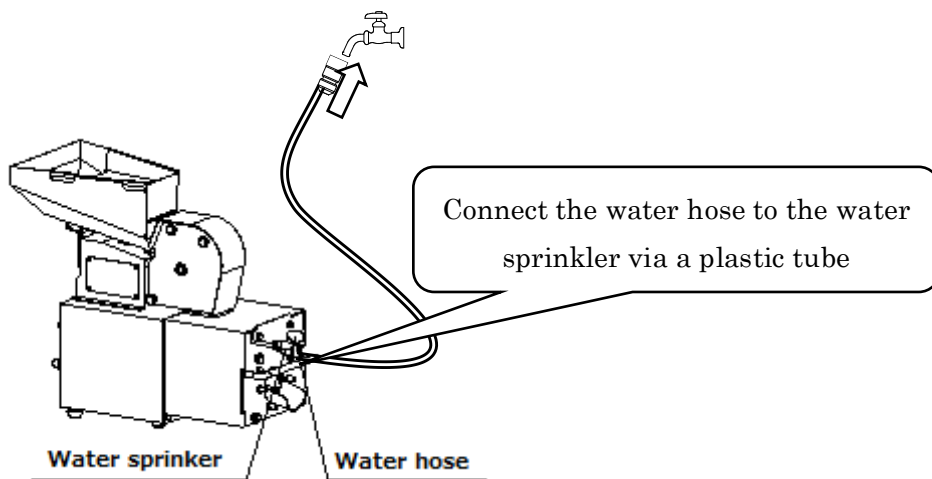
6. Insert one end of the plastic water tube into the Water sprinkler located inside the machine's front frame.



7. Insert another end of the plastic water tube into the main water hose on the side with a stopper clip.

8. Attach a hose connection adapter onto a faucet nozzle.

9. Latch a tip of the water hose with a latch connector onto a hose connection adapter attached onto the faucet nozzle.

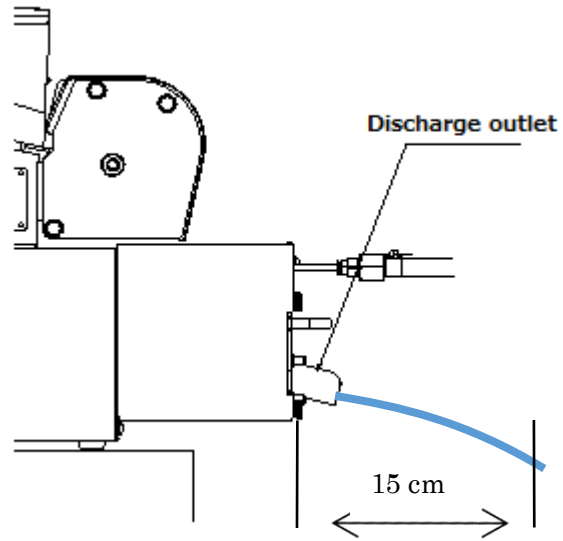


10. Insert boiled eggs into the Loading chute on top of the main unit. Up to 20 eggs can be inserted into the chute at one time.

Make sure not to damage eggs when inserting them into the chute. Avoid inserting eggs with damaged shells – such eggs can break apart during the peeling process, and clog the machine.

11. Turn on a water supply. Adjust the pressure judging by the strength of water outflow from the

machine: make sure the water falls at the distance of 15 cm (~6 in) from the discharge outlet. Insufficient water supply can cause shell clogging inside the machine.



5. Control elements

1. Main power switch

To switch the power supply ON turn the Main power switch to the “|” position. To switch the power supply OFF turn the Main power switch to the “○” position.

The Main power switch also serves as a short circuit breaker. If the switch goes off during the operation, this could be caused by an electric leakage in the machine’s electric circuit that needs to be repaired.

2. Operation switch

When the Main power switch is turned ON, turning this switch to the ON side starts the operation of the machine. Turning this switch to the OFF side stops the operation.

Check the following if the machine cannot be started using this switch:

- check if the machine’s plug is fully inserted into an outlet
- check if the Main power switch is turned ON
- check if the Emergency stop button is not in the locked position (turn clockwise to unlock)

3. Feeding rate controller

Rotating this knob clockwise (to the FAST side) shortens the time before the next egg is inserted into the peeling device.

Rotating this knob counter-clockwise (to the SLOW) side increases the time before the next egg is inserted into the peeling device.

The following refers to the time lag before the next egg is inserted into the peeling device for corresponding numerical values on the Feeding rate controller:

“0” – 12 seconds

“1” – 10 seconds

“2” – 8 seconds

“3” – 6.5 seconds

“4” – 5.5 seconds

“5” – 5 seconds

Adjustment method

For standard operation, set the controller to “3”.

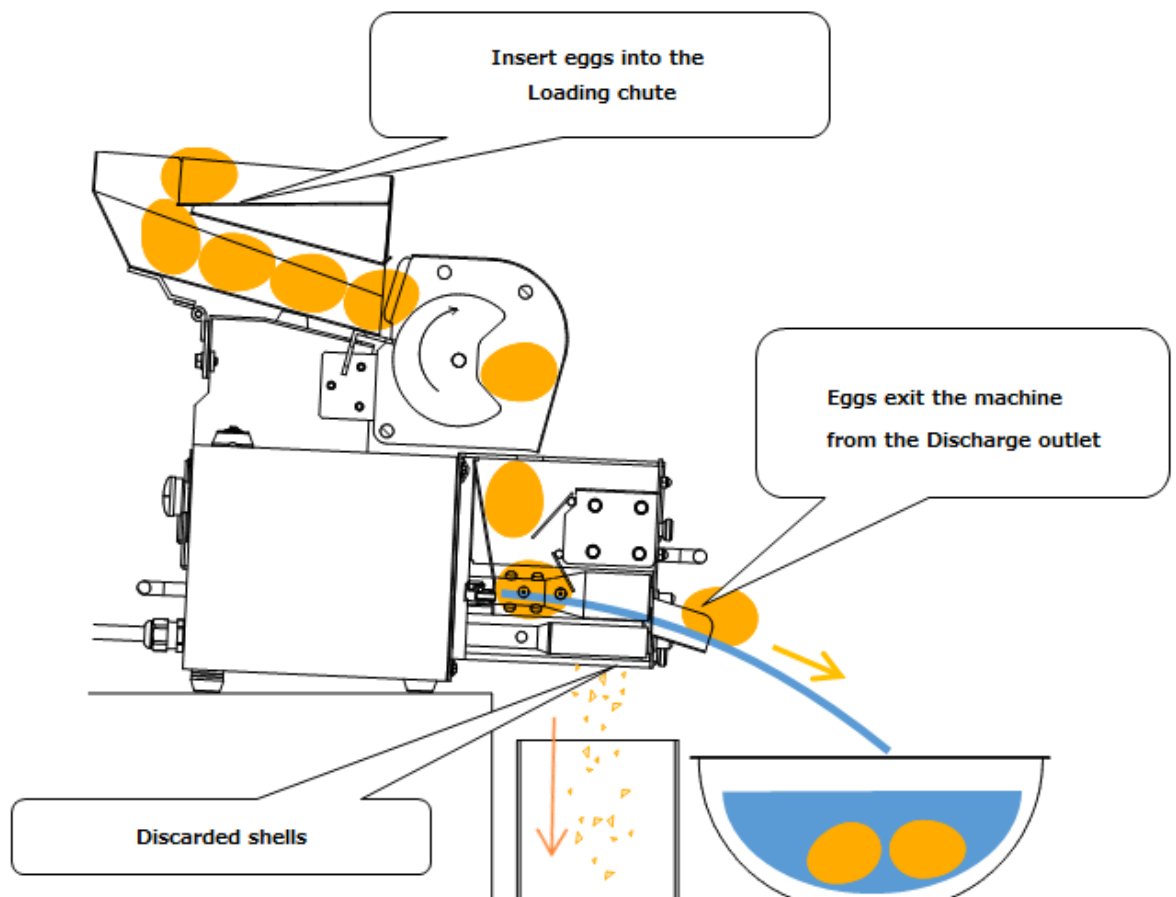
Set the controller to 2 or 1 if the eggs discharged from the machine after peeling still have unremoved shells on them. Set the controller to 4 or 5 if the eggs become damaged during processing inside the peeling device.

4. Emergency stop button

Use this button only in case when it is necessary to quickly stop the operation at once. Pushing this button downwards will immediately stop the operation, and lock the button. To unlock the button rotate it clockwise. Ensure safety when unlocking the button.

6. Operation instructions

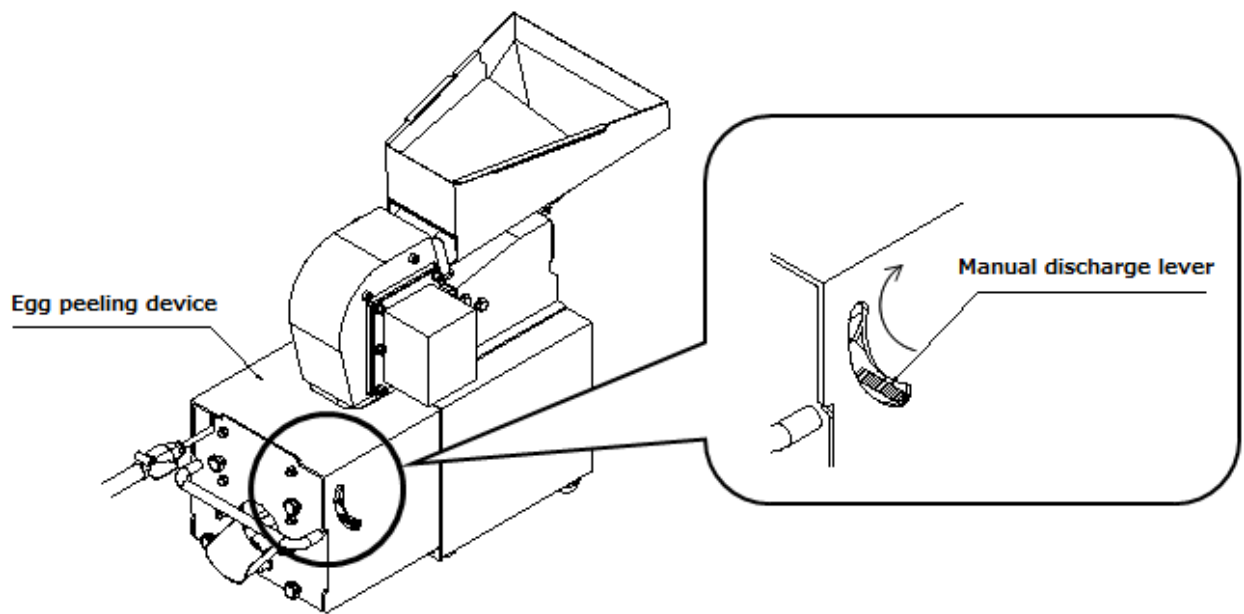
1. To start the operation turn the Operation switch to the ON side – the eggs inside the Loading chute will be carried in succession into the Egg feeder. Once passed through the Egg feeder, eggs are brought into the peeling device to have their shells cracked and removed with four rotating shafts. The eggs are pushed through the pathway by the next egg carried into the peeling device, and finally exit the machine through the Discharge outlet.
2. The peeled shells are discarded through a hole on the bottom side of the peeling device.
3. Some eggs may come out still partially covered with shells but such shells are easily removed simply by slightly rubbing the surface of eggs with fingers. Wash the eggs after peeling to remove all remaining shell fragments.



4. Because the eggs are pushed through the peeling device and finally to the Discharge outlet by the next processed egg, **smooth operation requires continuous supply of new eggs** from the Loading chute.

IMPORTANT: the last egg in the batch does not automatically exit the machine through the

Discharge outlet but remains inside the peeling device, and can be removed manually by pulling a special egg discharge lever on the back side of the peeling device (refer to the drawing below).



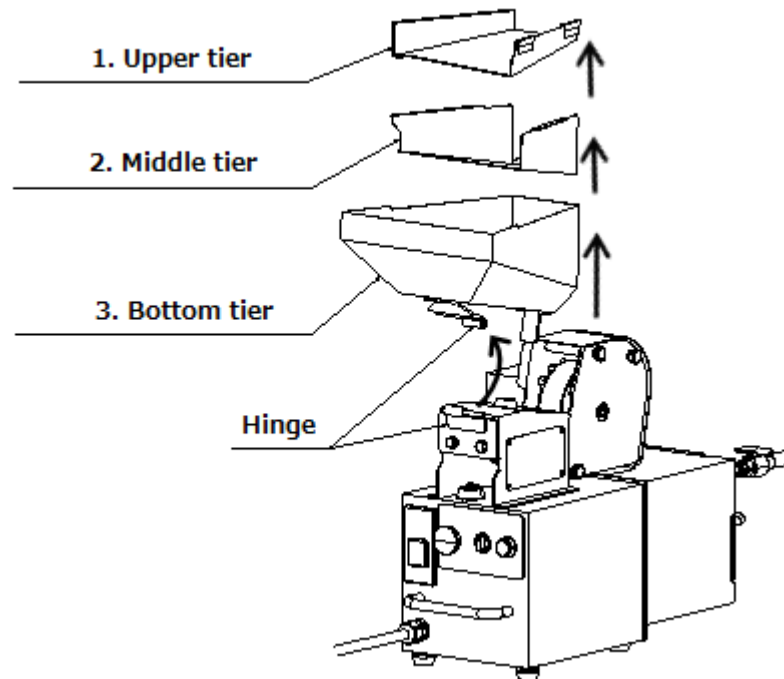
7. Disassembling, Cleaning and Disinfection procedures

For hygienic purposes, please follow the procedures below to clean the machine after every use. Except from the main unit, which houses the machine's motor, other parts of the GoldenEgg can be easily detached, cleaned and disinfected after every use.

Please remove detachable parts only after turning the Operation switch to the OFF side, and stopping the water supply into the machine.

1. Detach the Loading chute

The Loading chute consists of 3 tiers that should be detached in succession starting with the Upper tier.

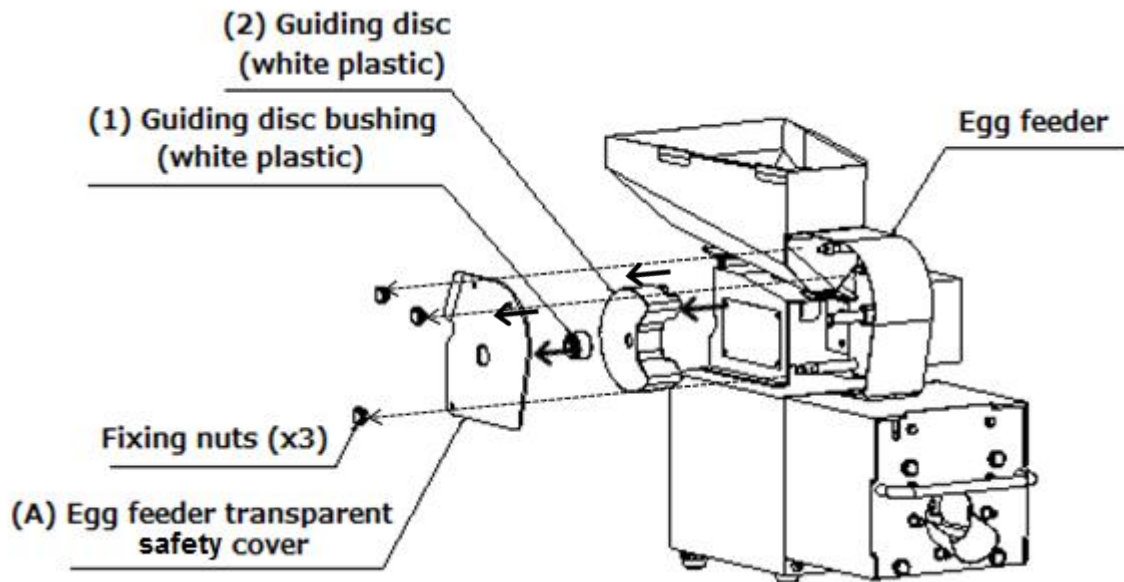


2. Detach a transparent safety cover of the Egg feeder

To disassemble the Egg feeder unscrew 3 fixing nuts on its front side.

Detach parts in the following order:

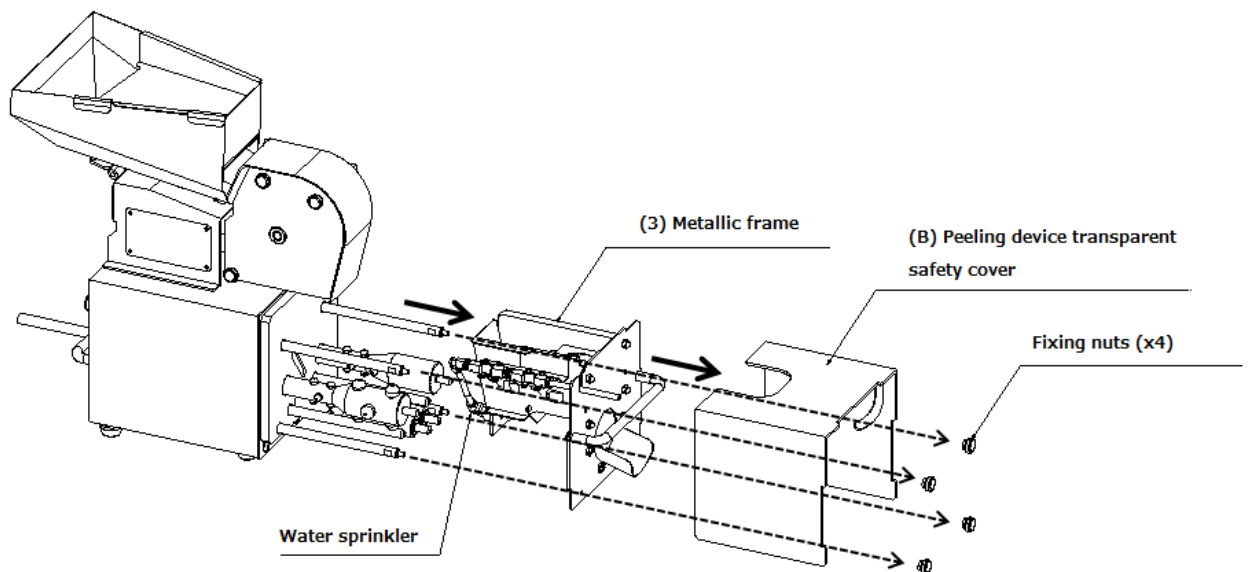
(A) Egg feeder transparent cover → (1) Guiding disc bushing → (2) Guiding disc



3. Detach a transparent safety cover of the Peeling device

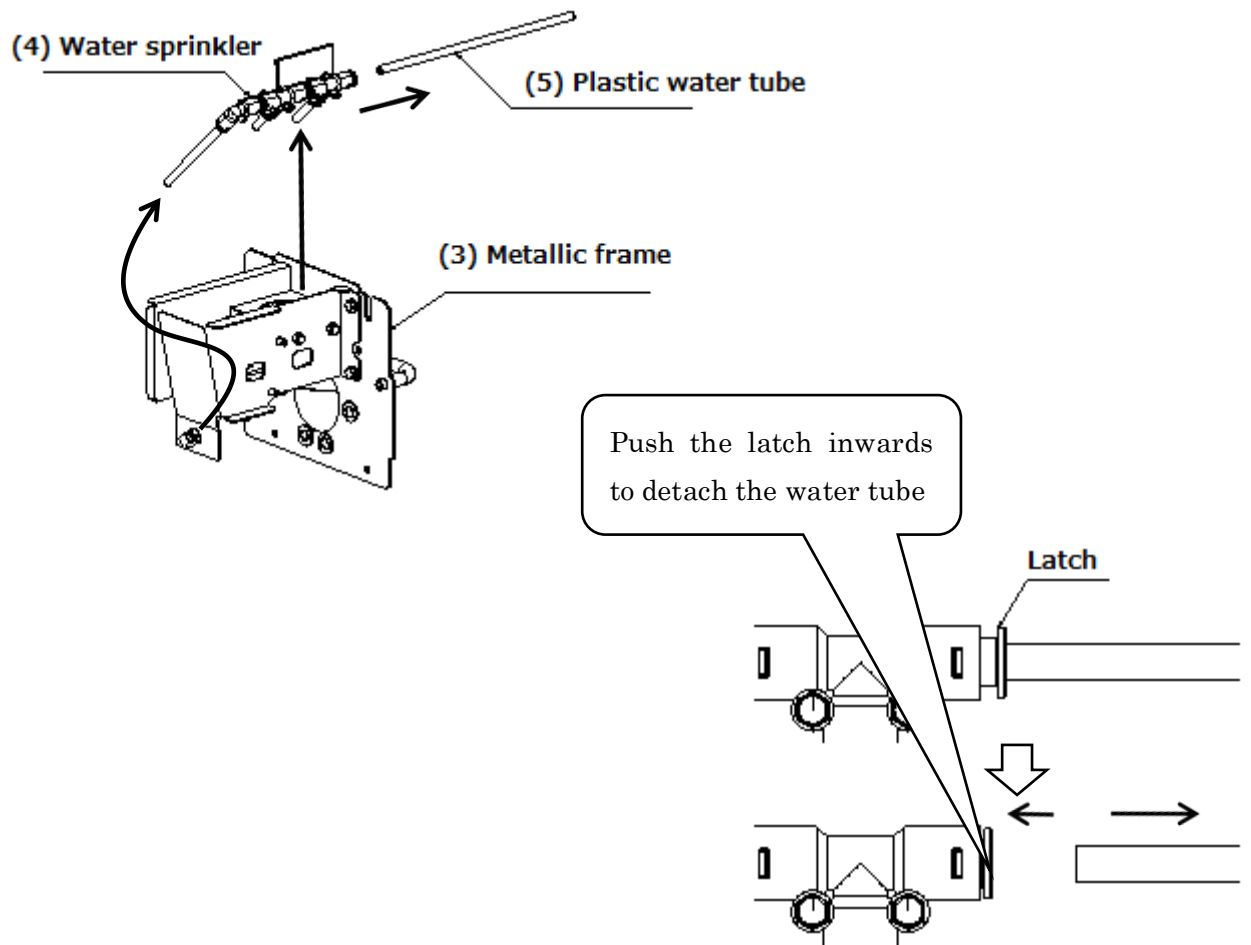
To disassemble the Peeling device unscrew 4 fixing nuts on the side of the Discharge outlet. Detach parts in the following order:

(B) Peeling device transparent safety cover → (3) Metallic frame



4. Detach the Water sprinkler

Water sprinkler is attached onto the metallic frame. Pull the (4) Water sprinkler up to detach it from the frame. Detach the (5) plastic water tube as well (for soaking in disinfectant solution). Refer to the drawing below for instructions on detaching the plastic water tube.



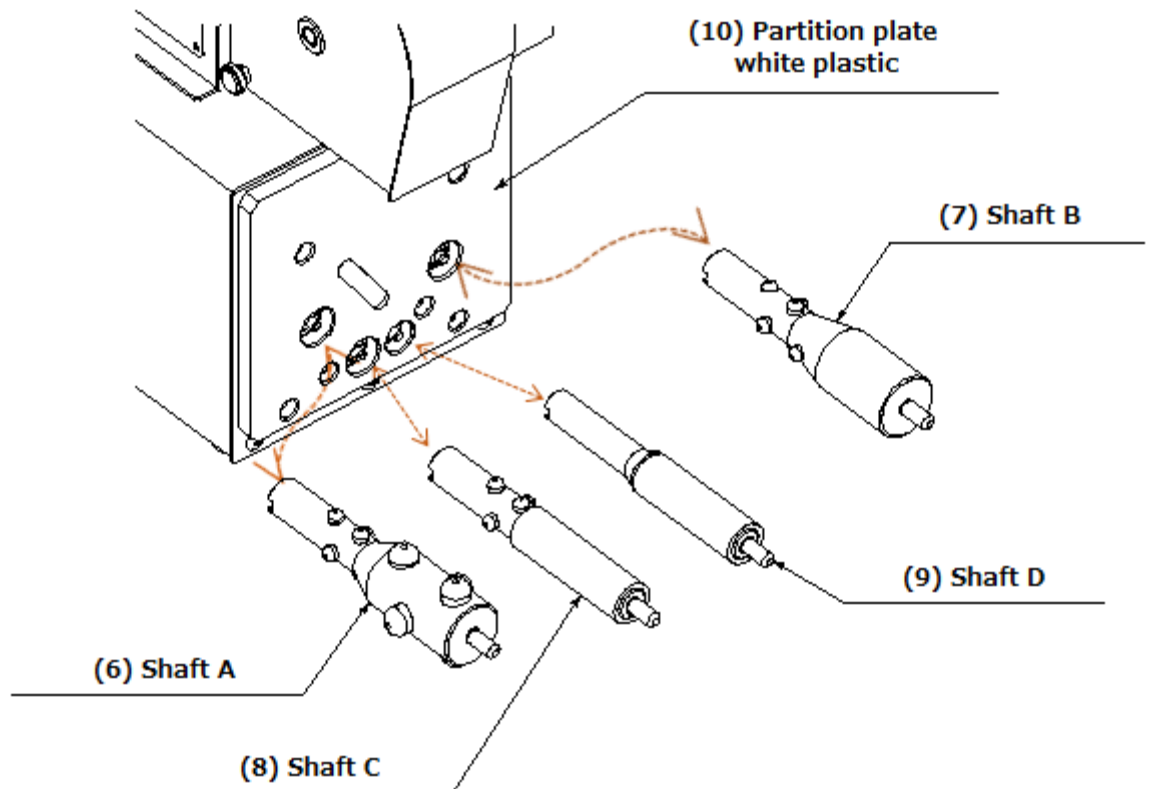
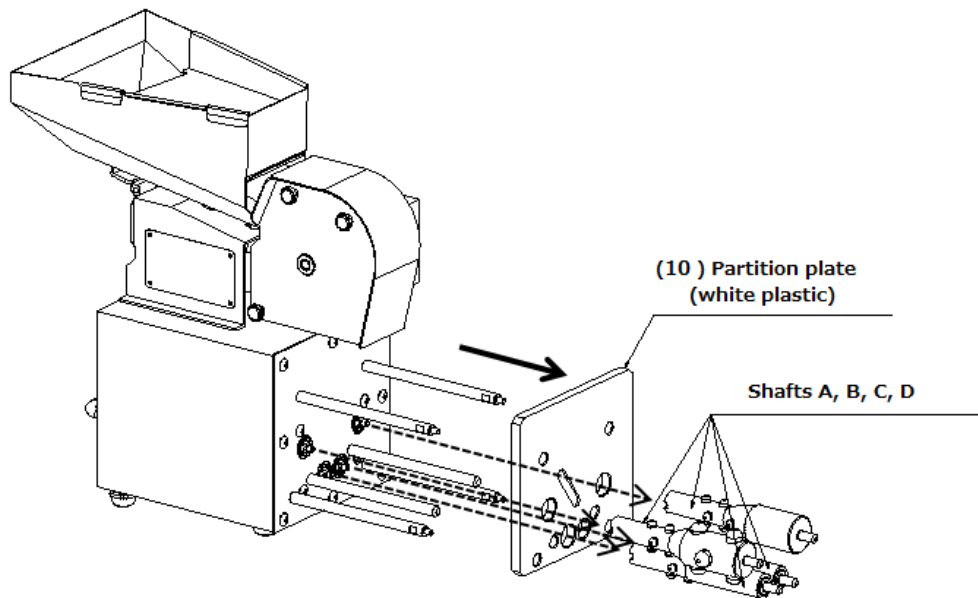
5. Detach the shafts

After detaching the metallic frame, shafts can be pulled out of the main unit.

The machine has 4 peeling shafts which have different shapes, and are inserted into different sockets on the main unit. The shapes and corresponding sockets for each shaft are depicted in the drawing below.

IMPORTANT: when re-assembling, make sure to insert each shaft into the correct socket.

After detaching the shafts, detach the (10) plastic partition plate.



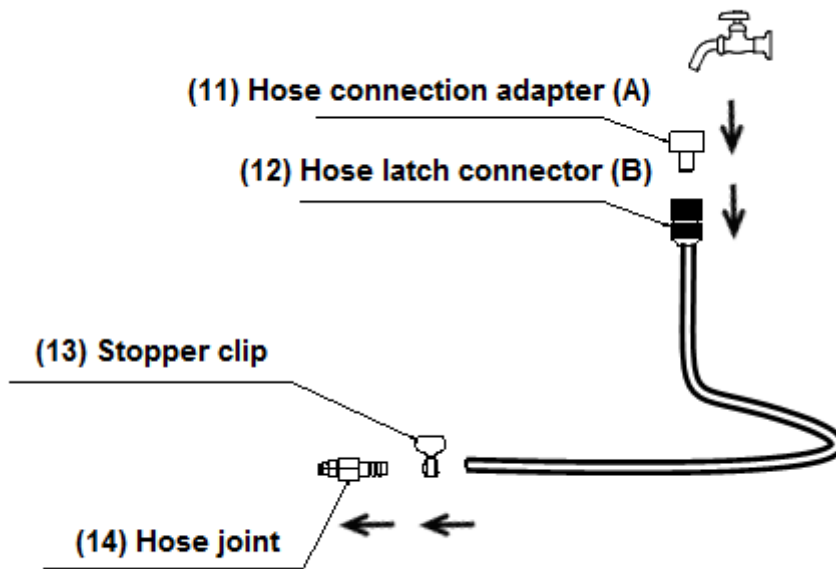
6. Detach the water hose

Recommended frequency: once a week.

Detach a (11) hose connection adapter (A) from a faucet nozzle.

Disconnect the (12) hose latch connector from the (11) hose connection adapter (A).

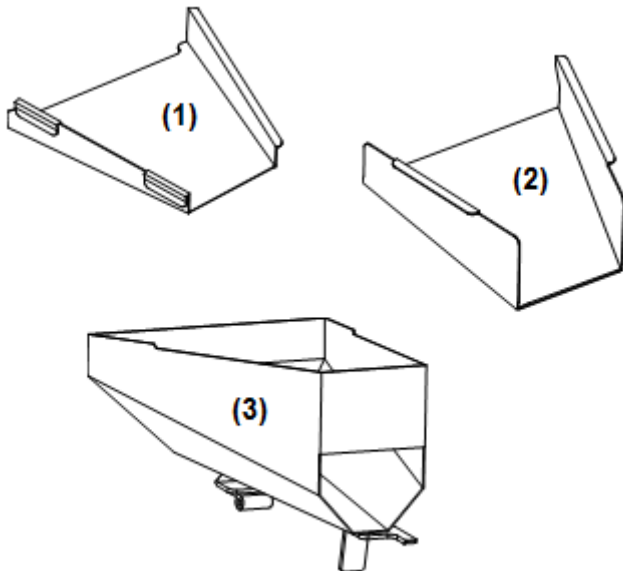
Loosen a (13) stopper clip on the other side of the hose, and pull out a (14) hose joint from the hose.



Cleaning and Disinfection

- Parts that can be cleaned in a dish washing machine:

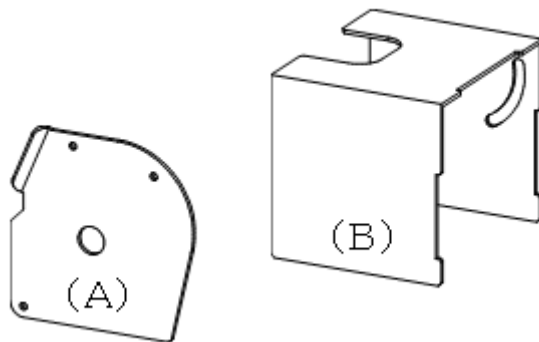
- Loading chute Upper tier (1)
- Loading chute Middle tier (2)
- Loading chute Bottom tier (3)



- Parts requiring hand washing:

(A) Egg feeder transparent safety cover

(B) Peeling device transparent safety cover



These covers are made from plastic, and should not be subjected to high heat. Do not wash them in a dish washing machine. Wash them by hand with a neutral detergent.

- Parts requiring soaking in a disinfectant solution:

(1) Guiding disc bushing

(2) Guiding disc

(3) Metallic frame

(4) Water sprinkler

(5) Water tube

(6) Shaft A

(7) Shaft B

(8) Shaft C

(9) Shaft D

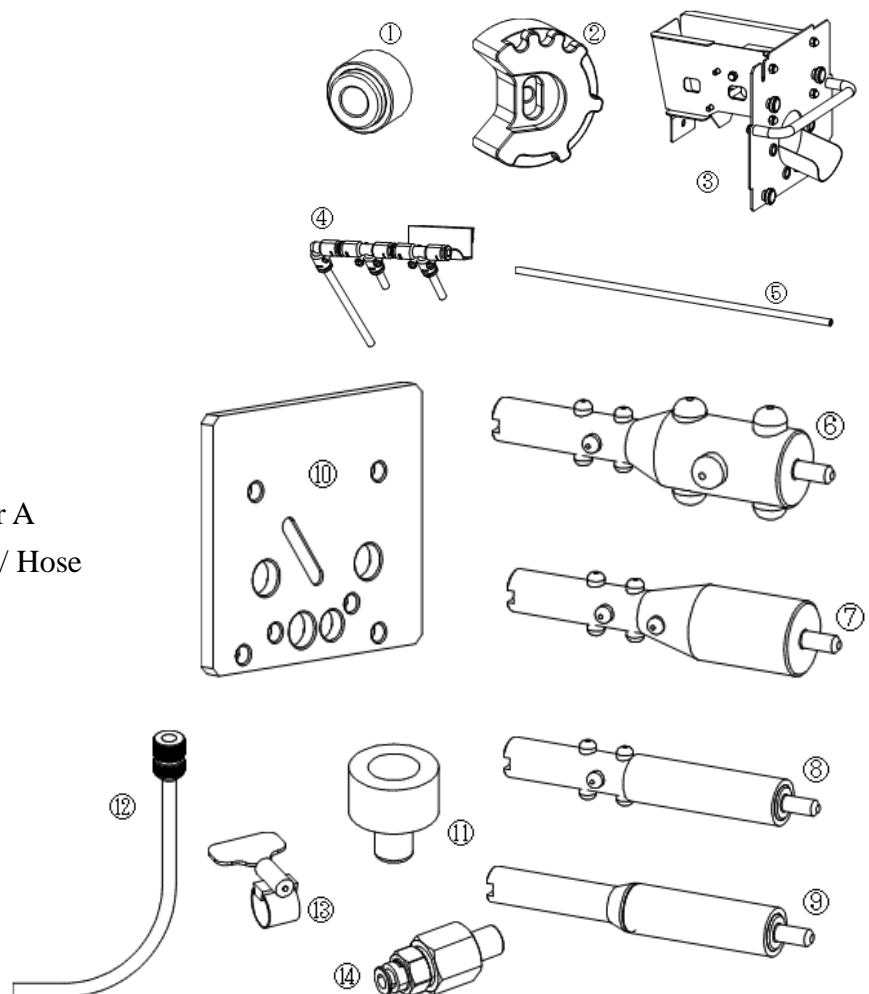
(10) Partition plate

(11) Hose connection adapter A

(12) Hose latch connector B / Hose

(13) Hose stopper clip

(14) Hose joint



(Disinfection for parts 11-14 must be performed once a week)

For disinfection, soak the parts above for 20-30 minutes in a 2% solution prepared from a neutral detergent (surface active agent) and a chlorine-based detergent (disinfectant agent) (1:1 proportion).

8. User-performed troubleshooting

Check the following if the machine cannot be started by turning the Operation switch to the ON side:

- check if the machine's plug is fully inserted into an electric outlet
- check if the Main power switch is turned ON
- check if the Emergency stop button is not in the locked position (turn clockwise to unlock)

If the machine stops during the operation:

If the operation stops during the operation without any input from the user, check if the operation can be resumed after performing the following actions:

- turn the Operation switch to the OFF side
- turn the Main power switch OFF
- remove shell fragments from the Peeling device
- turn the Main power switch ON
- turn the Operation switch to the ON side

Contact our company's Customer support department if the machine stops due to an electric short circuit.

If too many shell fragments remain on the peeled eggs:

Refer to the section 5 of this User Manual (“Control Elements”) for information on using the Feeding rate controller for adjusting the number of eggs peeled in a given time.

Check the following if the problem cannot be resolved by adjusting the feeding rate:

- eggs are too fresh
- egg shells are not punctured before boiling
- eggs are not cooled in ice cold water after boiling

(please refer to the separate Egg Boiling Manual for advice on proper ways to boil eggs before peeling them using the GoldenEgg machine).

9. Machine disposal / Transfer of ownership



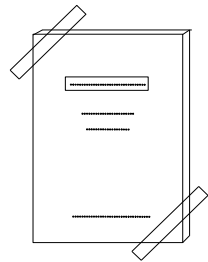
CAUTION



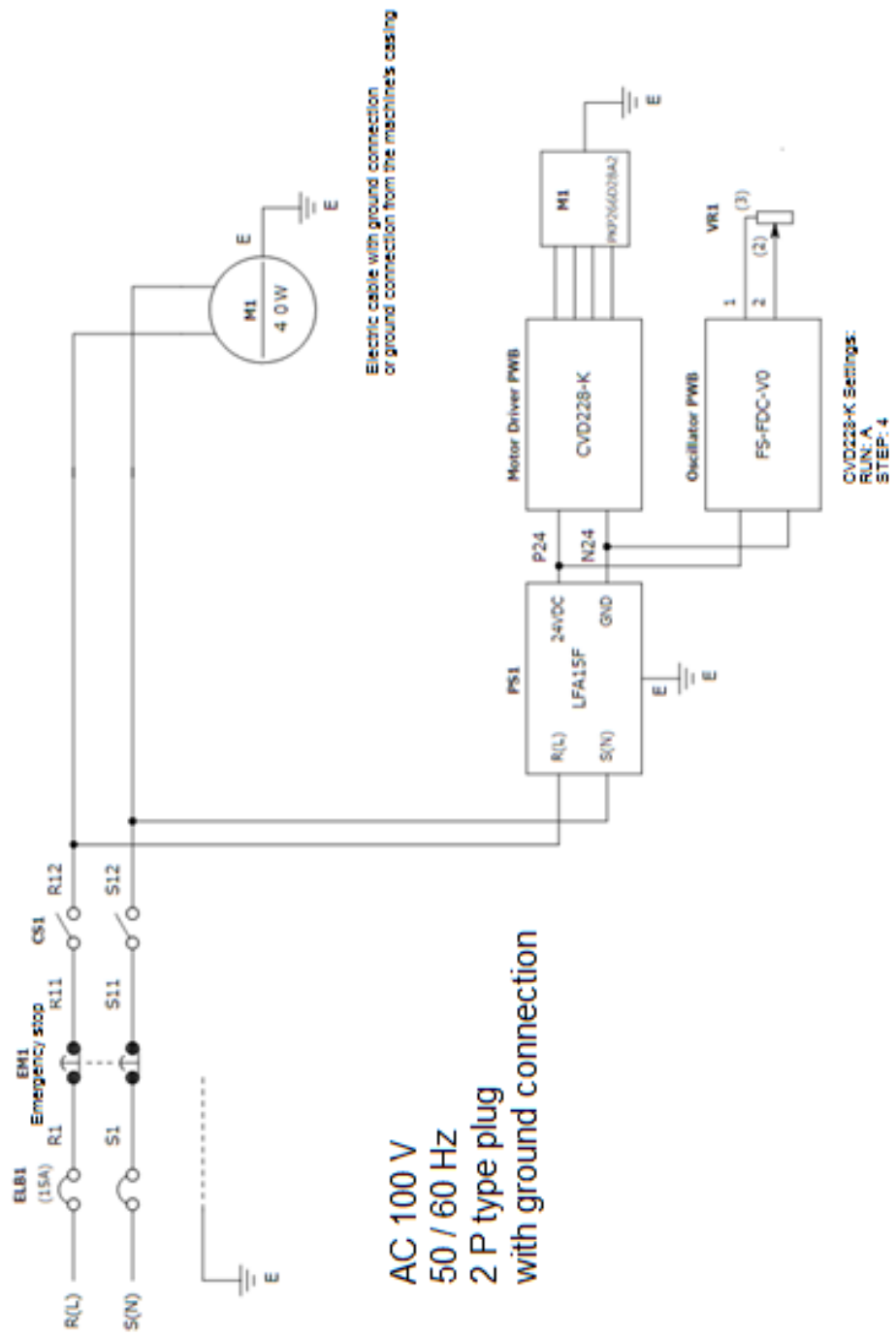
Dispose the machine through a specialized service contractor or a nearest dealership. Disregarding this can result in unforeseen accidents.




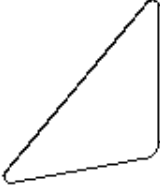




In case of reselling the machine or transferring ownership thereof, make sure to provide a copy of this user guide to a new owner for proper and safe operation and maintenance; or attach this User Manual onto the machine with an adhesive tape.



10. Circuit diagram



11. Tools and parts

	Cross head screw driver (x1)		Alignment jig (x1)
	Fixing nut (spare) (x2)		Bushing (spare) (x2)
	Guiding disc bushing (spare) (x1)		Round washers for rubber supports (x4)

12. Manufacturer, Distributor

Manufacturer:

Yamato MFG Co., Ltd.

Headquarters:

37-4, Hamasanbancho, Utazu-cho, Ayauta-gun, Kagawa pref., Japan

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Technical support Department:

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contact@yamatomfg.com

Distributor:

For improvement purposes, design and specifications may be subject to change without prior notice.