



MonoEquip.com

MONO Combination Moulder

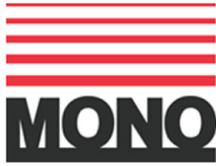
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Quick Start Guide



Machine Serial Number _____ (if fitted)

In the event of an enquiry, please quote this serial number.



DECLARATION OF CONFORMITY

We hereby declare that this machine complies with the essential health and safety requirements of :-

- The Machinery Directive 2006 / 42 / EC
- The Low voltage Directive 2006 / 95 / EC
- The requirements of the Electromagnetic Compatibility Directive 2004 / 108EC, 91 / 263 / EEC, 92 / 31 / EEC
- The General Safety of Machinery and food processing Standards applicable
- Materials and Articles intended to come into contact with food - Regulation (EC) No. 1935 / 2004
- Good manufacturing practice for Materials intended to come into contact with food - Regulation (EC) No. 2023 / 2006

Signed	
D. Osmundsen – Quality and Conformance Manager	

Date	
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Machine FG Code.		Machine Serial No.	
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A technical construction file for this machine is retained at the following address:

MONO EQUIPMENT
 Queensway,
 Swansea West Industrial Park,
 Swansea
 SA5 4EB
 UK

MONO EQUIPMENT is a business name of **AFE GROUP Ltd**
 Registered in England No.3872673 VAT registration No.923428136

Registered office: Unit 35,
 Bryggen Road,
 North Lynn Industrial Estate,
 Kings Lynn Norfolk,
 PE30 2HZ

Safety Symbols

The following safety symbols are used throughout this quick start guide. Before using your new equipment, read the instruction manual carefully and pay special attention to information marked with the following symbols

**WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or severe injury.

**WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or severe injury.

**CAUTION**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Electrical Safety Notice



Electrical safety and advice regarding supplementary electrical protection

Commercial kitchens and food service areas are environments where electrical appliances may be located close to liquids or operate in and around damp conditions or where the restricted movement for installation and service is evident.

The installation and periodic inspection of the appliance should only be undertaken by a qualified, skilled, and competent electrician and connected to the correct power supply suitable for the load as stipulated by the appliance data label.

The electrical installation and connections should meet the necessary requirements of the local electrical wiring regulations and any safety guidelines.

We recommend:

- Supplementary electrical protection with the use of a Residual Current Device (RCD)
- Fixed wiring appliances should also incorporate a locally situated switch disconnector to connect to, which is easily accessible for switching off and safe isolation purposes. The switch disconnector must meet the specification requirements of IEC 60947.

Your attention is drawn to-

BS 7671:2018 – Guidance Note 8 – 8.13: Other locations of increased safety risk

It is recognised that there may be locations of increased risk of electrical shock other than those specifically addressed in Part 7 of BS 7671. Examples of such locations could include laundries where there are washing and drying machines in close proximity and water is present, and commercial kitchens with stainless steel units, where once again, water is present. Where, because of the perception of additional risks being likely, the installation designer decides that an installation or location warrants further protective measures, the options available includes:

- Automatic Disconnection of Supply (ADS) by means of a residual current device having a residual operating current not exceeding 30 mA;
- Supplementary protective equipotential bonding; and
- Reduction of maximum fault clearance time.

The provision of RCDs and supplementary bonding must be specified by the host organisation's appointed installation designer or electrical contractor and installed by a suitably qualified and competent electrician so as to comply with Regulations 419.2 and 544.2.



WARNING ▪ A 30mA-rated Type A RCD must protect the supply to this machine.

Introduction

Thank you for purchasing this MONO Combination Moulder.

“A combination of clean industrial design and the latest technology.”

The information in this quick start guide should get your purchase up and running without any problems. There is a complete Installation and Operating Manual available at www.monoequip.com. If you have a problem with your purchase, please contact the Mono Service Department at:

MONO Equipment Limited

Queensway, Swansea West Industrial Park, Swansea, SA5 4EB, UK

Tel. +44/0 1792 561234

Email: mono@monoequip.com

Safety

The Bakery Manager or Supervisor must carry out daily safety checks. Bakery staff **must not**, under any circumstances, remove panels or guards to access any part of the machine.

Only fully-trained and authorised persons are permitted to do any work on the Moulder. Always disconnect or isolate the power before starting maintenance (i.e., opening panels) or cleaning work on the Moulder. Authorised electricians **must** carry out all repairs to, and maintenance of, electrical parts.

The product owner is legally obliged to instruct staff on these safety points and the safe operation of machinery. Therefore, these instructions should not be removed from the working area.



WARNING

- Before using the Moulder, check that:
 - All cover panels and guards are fitted and secure.
 - There is no visible damage such as frayed cables.
- If the machine is damaged or malfunctioning, stop using it.
 - Do not attempt any repairs.
 - Contact the MONO Service Department for assistance.
- Operate the Moulder only as described in MONO manuals.
- Do not attempt to scrape moulding belts when the Moulder is running.



WARNING

- An electrical socket **must** be protected by a 30mA-rated Type 'A' Residual Current Device (RCD) before installation and commissioning of the Moulder.
- **Always** fit a wall-mounted isolator switch to isolate the machinery completely from the electrical supply. The isolator must be visible, clearly labelled, and easily accessible by an operator.
- **Always** check electrical requirements on the machine's information plate before connecting the power. All connections to the Moulder must comply with the statutory requirements of the country where installed.
- Hands must be dry before touching electrical equipment (including cable/plug).



CAUTION

- No one under the age of 16 may operate this machine.
 - No one under the age of 18 may clean this machine.
 - No loose clothing or jewellery to be worn while operating the machine.
 - Hand or bodily contact with moving belt surfaces may cause friction burns to skin. This situation need not occur to successfully operate the Moulder.
 - Guards must be secured with bolts/screws unless protected by a safety switch.
 - Do not store items on or surrounding the Moulder.
 - Only use the machine for moulding dough. Contact MONO Equipment for other product-making machines.
 - No unauthorised modifications to the Moulder are permitted.
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Installation

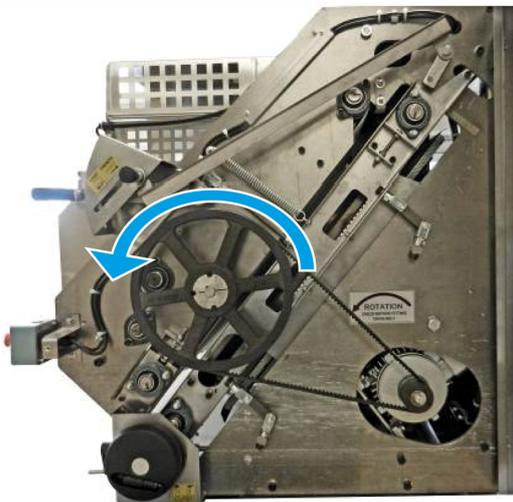
Installation of the Moulder

1. Ensure the machine is standing on a solid and level floor.
2. Lock the two front castors into place (**Figure 1**).
3. Check the machine after installation to ensure the conveyor belt runs in the right direction.
 - This should be done drive's V-belt removed.
 - The drive motor should be travelling in an anti-clockwise direction (**Figure 2**). If the motor rotation is incorrect, a qualified electrician should transpose any two wires of the three-phase carrying wires.

Figure 1: Lock the castor wheels



Figure 2: Check the machine after installation



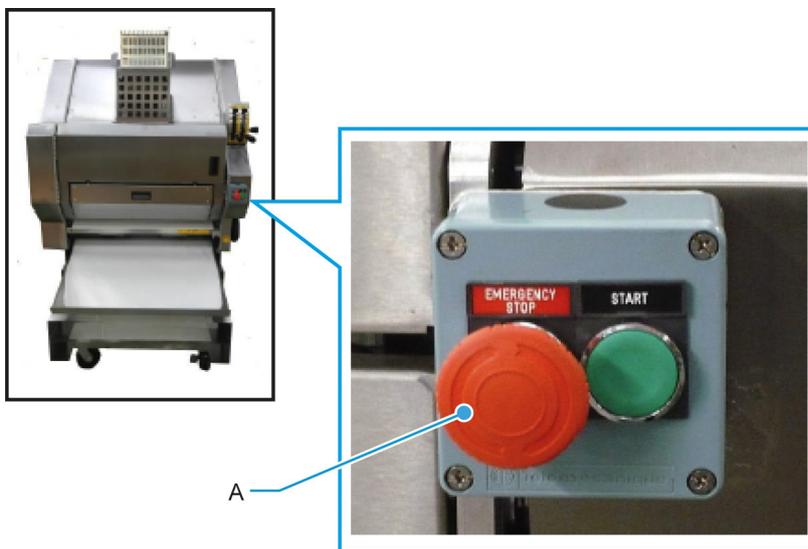
Isolation

Isolating the Moulder from the electrical supply

To stop the Moulder **in an emergency**:

- Turn the wall-mounted isolator switch to the "0" (OFF) position.
- Use the **Emergency Stop button** on the Moulder. (Figure 3 | A).
 - **NOTE:** To release the Emergency Stop Button after use, twist and then release

Figure 3: Moulder Emergency Stop



A. Emergency stop button.

Operation

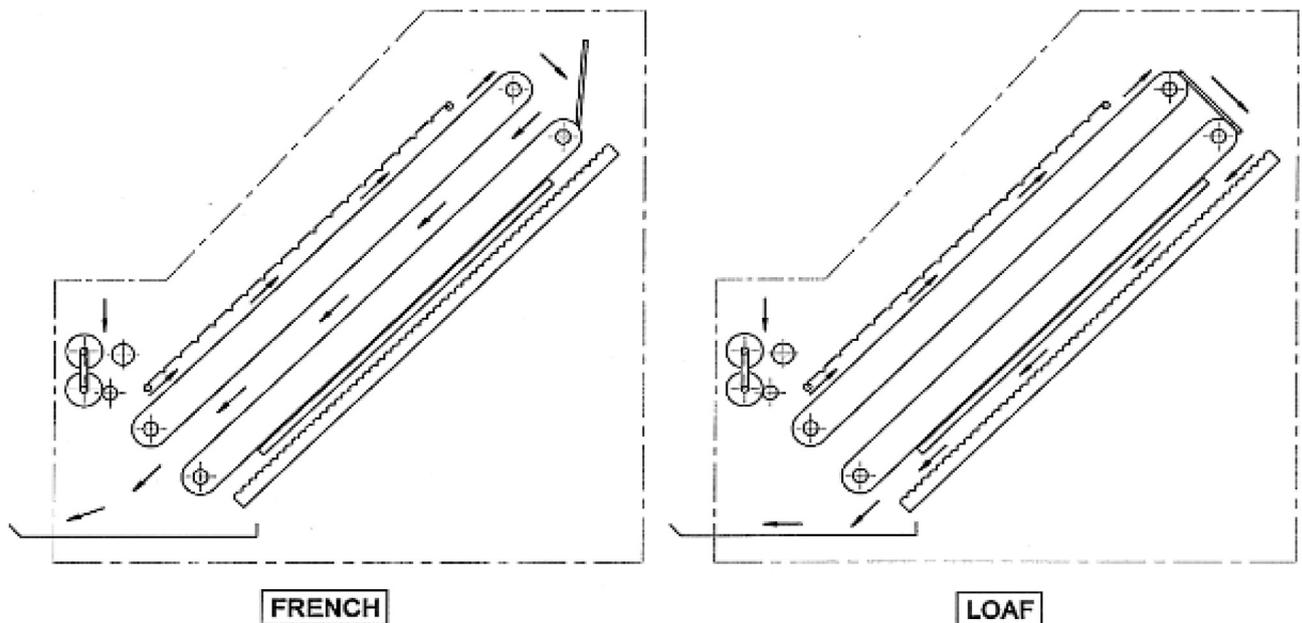
Operating information

The Moulder should be used on a solid and level floor for the best results. All control levers, handles, etc. are best adjusted when the Moulder is running, although they can be adjusted with the machine stationary.

Machine cycle information

- The moulding elements consist of two dough guides, two differential sheeting rollers, a guide roller, a stripper roller, a removable curling chain, two endless polyurethane belts rotating in the same direction, a two-position deflector, a pressure board, a pair of dough guides, and an offtake tray.
- The dough is delivered from the Prover's conveyor and sheeted through the two differential rollers into a pancake shape.
- The dough piece is taken off the rollers using a stripper roller and guided by the remaining roller onto the endless polyurethane belt. Upon making contact with the belt, the dough piece is immediately pressurised by the curling chain mat. The light pressure produced by the chain causes the dough piece to roll over on itself and form a sausage shape.
- At this stage in the moulding process, the dough path can be selected via a pushrod to be further processed between the front and rear belts or between the rear belt and pressure board.
- Both moulding routes chosen will deposit the finished dough piece onto an offtake tray.

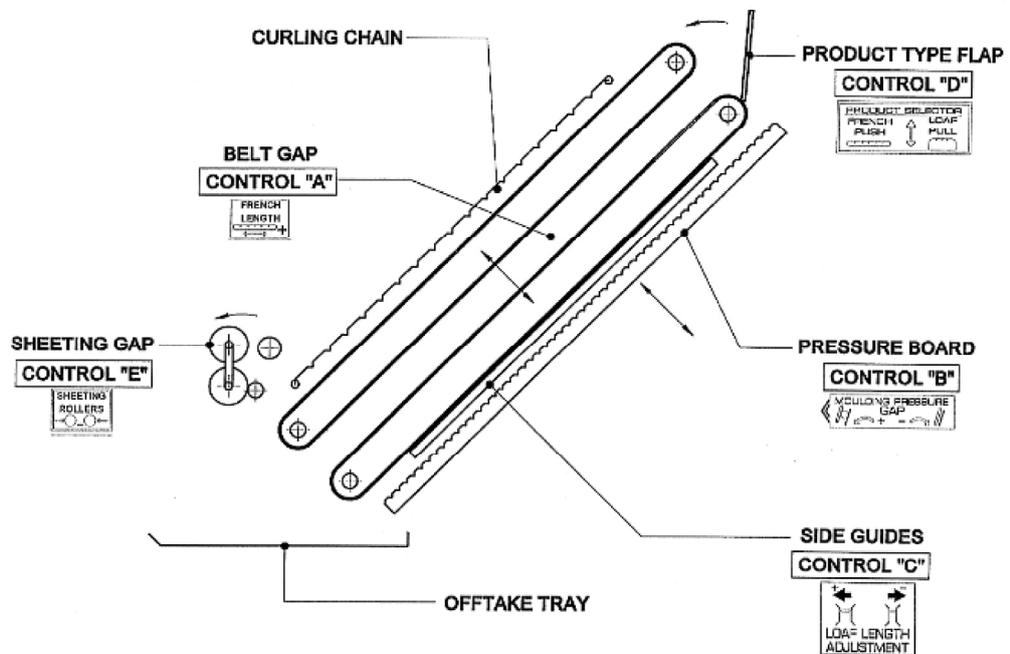
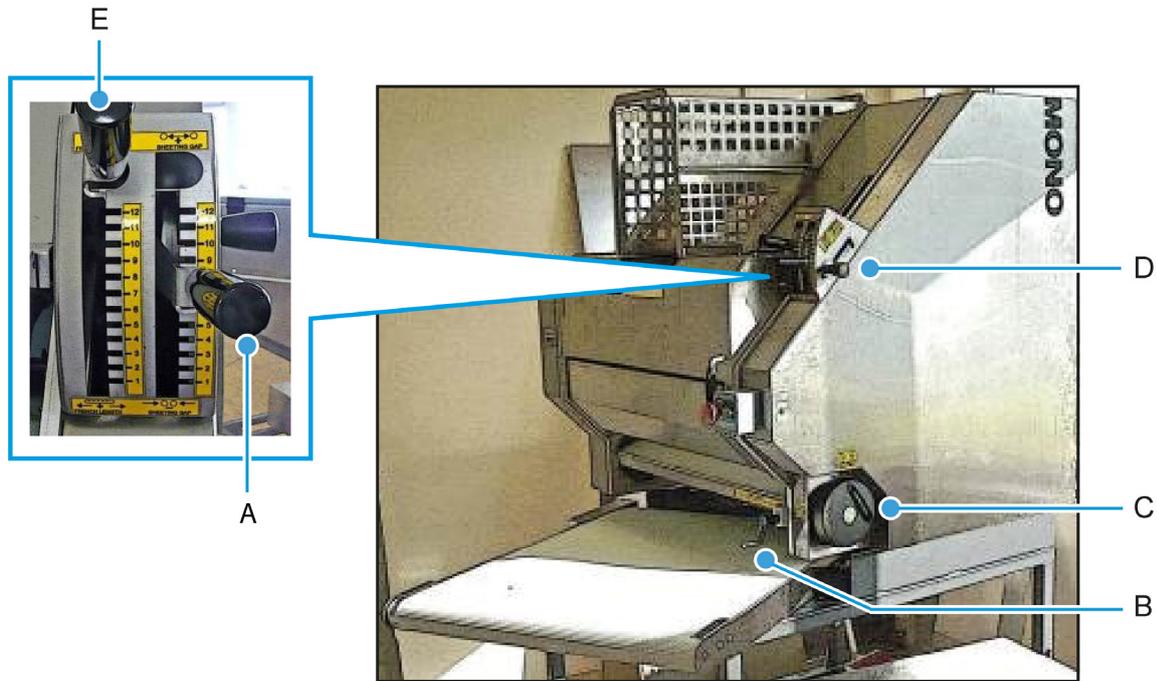
Figure 4: Dough path



Operating Instructions

Operating controls

NOTE: Ensure the Moulder is set up and adequate tins and trays are available before starting.



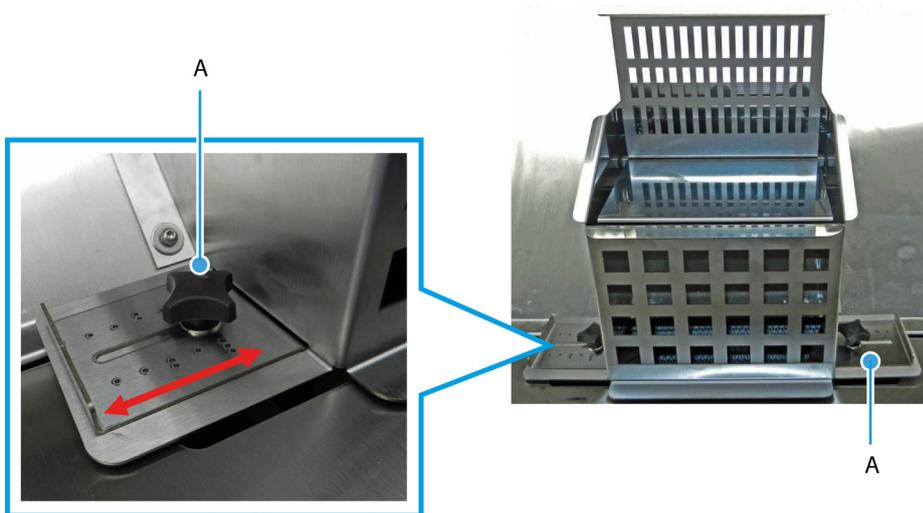
NOTE: All control levers, handles, etc., are best adjusted when the Moulder is running. However, they can be adjusted when the machine is stationary.

Setting the gap on the hand-feed hopper

The hopper in-feed gap can be adjusted for large or small pieces. By decreasing the gap, smaller weight dough can be kept central on the moulding rollers.

1. Loosen the two knobs (**Figure 5 | A**).
2. Slide the adjusting plates to the required position.
3. Ensure both sides have equal gaps, and then tighten the two knobs.

Figure 5: Hand-feed hopper gap setting

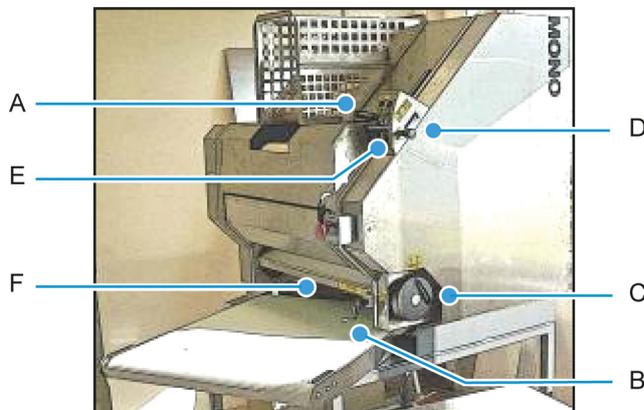


A. Knob.

Moulding between rear belt and pressure board: tin bread and bloomers

1. Move control lever "A" to position 0.
 - This ensures the correct transfer of the dough piece after curling and correct discharge onto the return conveyor.
2. Push lever "D" to position required (LOAF).
3. Adjust handle "E" for the infeed sheeting gap.
4. Adjust handle "B" for the pressure board.
 - Anti-clockwise will mean the numbers on the digital counter will increase and therefore the pressure on the dough will decrease. Clockwise will be the opposite. The number on the digital counter should be noted so it can be reproduced later.
5. Adjust hand wheel "C" to control the length of the loaf.
 - Hand wheel simultaneously positions the dough side guides equally about the centreline of the moulder. The distance between the dough guides is indicated by the metal pointer on the scale "F".
6. After moulding, the dough piece should be transferred from the offtake to a waiting tray.

Figure 6: Settings for tin bread and bloomers

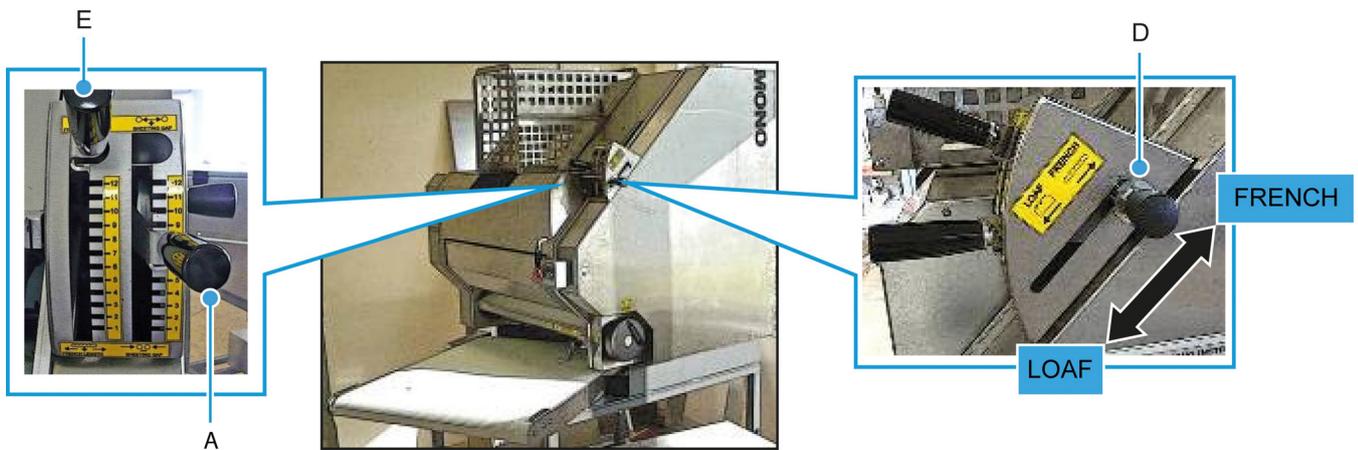


NOTE: In-feed hopper shown.

Moulding between belts: **French sticks and petit pain**

1. Set lever "A" to control the length of the dough piece required.
2. Push lever "D" to the position required (FRENCH).
3. Adjust lever "E" to open or close the sheeting gap of the two infeed rollers.
 - Control settings will vary according to user preference, dough mixes, product, machine construction; these best settings are found by experimentation.
 - It is advisable for the Bakery Manager to inform staff of the settings required for all French ranges once established. This results in a consistent product, assuming the dough condition is constant.

Figure 7: Settings for French sticks and petit pain



Cleaning

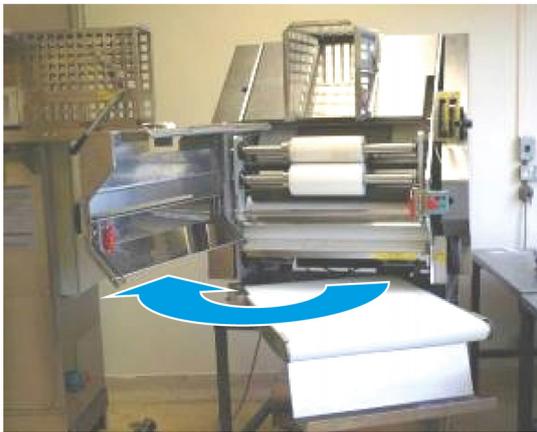
Safety messages



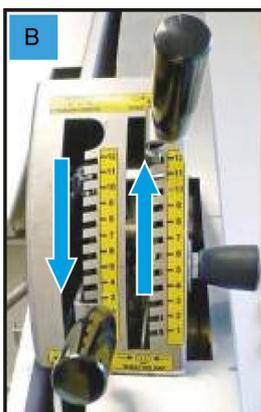
- WARNING** ■ Switch off and electrically isolate the machine from the mains power supply before commencing any cleaning or maintenance work.

Daily cleaning instructions

1. Isolate the Moulder from the mains supply. ⚠
2. Remove any substantial dough pieces using a plastic scraper.
3. Open the large front door (A).



4. Set the sheeting gap to the widest mark (B) and brush out residue from the area, using a plastic scraper on the rollers if required.

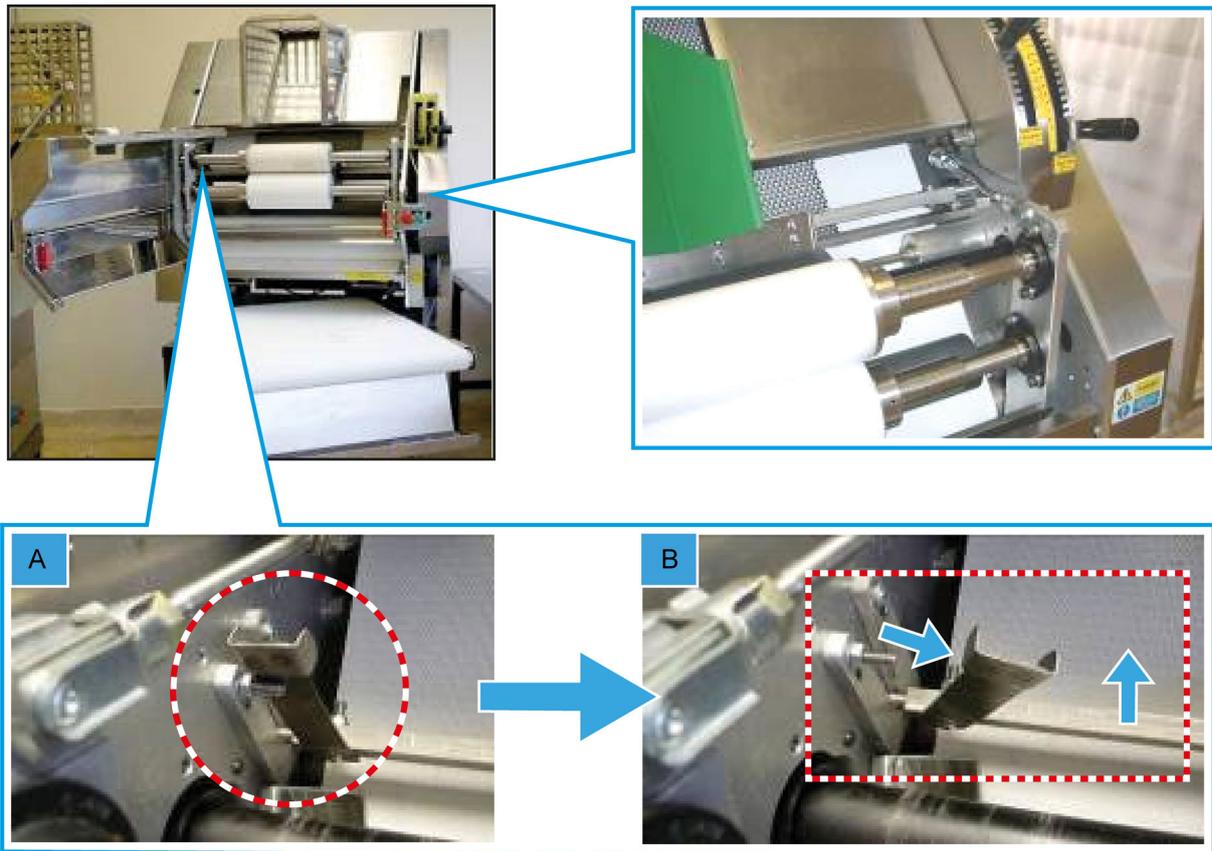


5. Clean any residue trapped at the bottom of the belt. Scrape the exposed surface of the dough-moulding belt with a plastic scraper.
6. Brush or vacuum the area and close the large front door.

7. Clean the scraper and curling chain.
 - a. Slide the two clips sideways and lift the bar to disengage (**Figure 8**).
 - b. Lift chain off top bar and remove curling chain and scraper (**Figure 9**).
 - c. Wash and dry the scraper and chain.
 - d. Refit the curling chain by dropping it down the conveyor from the back and clipping it in place at the front (**Figure 10**).
8. Complete the daily cleaning.
 - a. Brush down all external surfaces of the machine, including the stand.
 - b. Sweep under the machine to remove all debris from the floor.
 - c. Spot clean with dampened cloth, sanitising solution, and hot water.
 - Pay particular attention to handles, levers, and controls.

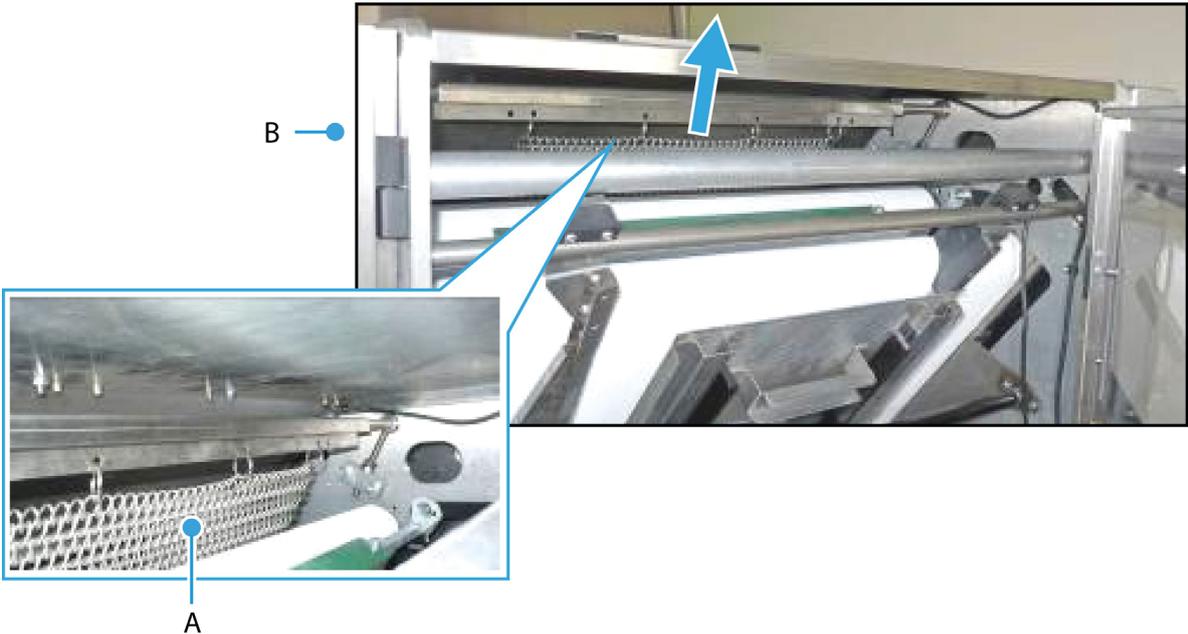
Scraper and curling chain removal

Figure 8: Remove the scraper



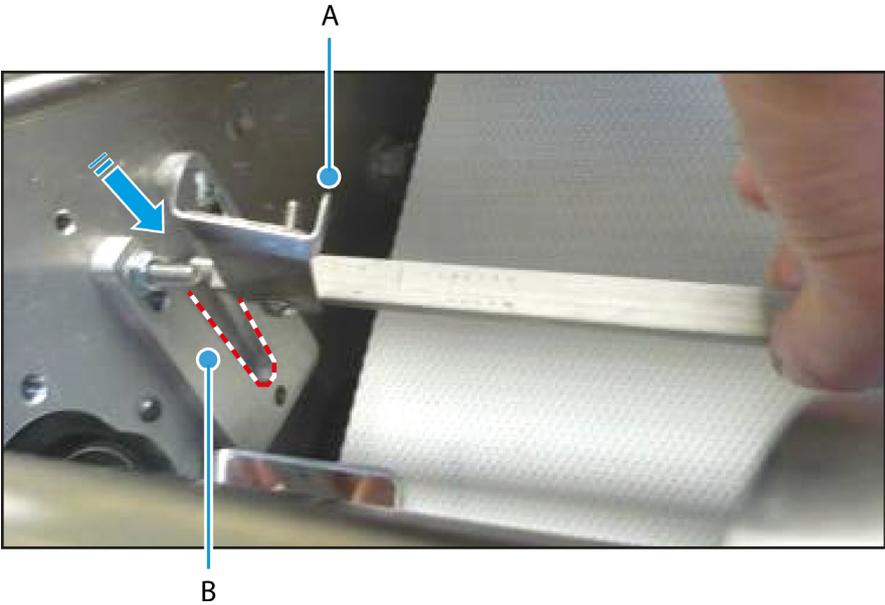
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- A. Clip closed.
B. Clip open.
-

Figure 9: Detach the top of the curling chain



- A. Curling chain.
- B. Rear view.

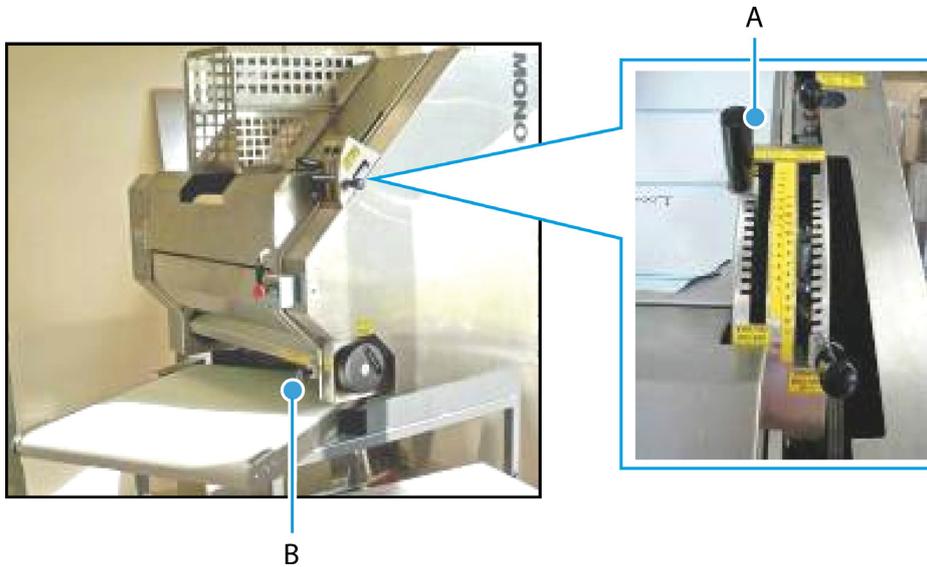
Figure 10: Refit the scraper and curling chain



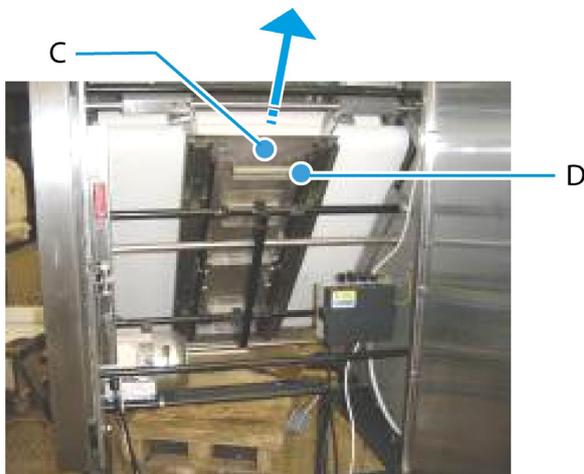
- A. Clip.
- B. Slot.

Removing the pressure board

1. Access the pressure board.
 - a. Fully lower the rear-moulding belt using the lever (A).
 - b. Fully lower the pressure board by adjusting the handle (B) to setting "400" on the counter.
 - c. Open the rear door.



2. Remove the pressure board (C) by gripping the handle provided (D), and then lifting it up and out.



3. Wash surfaces of the pressure board and side guides with sanitising solution and hot water.
 - Dry the pressure board with a cloth.
4. Remove any dough from the bottom belt with a plastic scraper.
5. Replace the pressure board, making sure the hooks on the board are fully engaged.
6. Close the rear door **firmly** to make the safety switch connection.

Cleaning the off-take tray

- Clean the off-take tray by scraping it clean with a plastic scraper.
- Brush down all external surfaces of the machine including the stand.
- Sweep under machine to remove all debris from the floor.
- Spot clean with cloth dampened, disinfecting solution and hot water, paying particular attention to handles, levers and controls.

Figure 11: The off-take tray



Weekly cleaning instructions

1. Isolate the Moulder from the mains supply. ⚠
2. Follow the procedure for daily cleaning.
3. Pull the Moulder away from obstructions.
4. Wipe the stand with a cloth dampened with disinfecting solution and hot water.
5. Scrape and scrub the wheels on the Moulder.
6. Wipe down all internal surfaces with disinfecting solution and hot water.
7. Dry the external surfaces with a cloth.

Maintenance

Safety notices



- WARNING**
- Switch off and electrically isolate the machine from the mains power supply before commencing any cleaning or maintenance work.
-



- WARNING**
- This appliance must be maintained at regular intervals. The frequency of maintenance will depend upon your specific use and location. The maximum service interval should be 12 months.
 - Service and maintenance should only be undertaken by suitably qualified, trained, and competent engineers.
 - You must immediately report any damage or defect arising with the appliance.
 - Unsafe equipment is dangerous. Do not use the appliance. Isolate the power supply and contact MONO Equipment Limited or your appointed service agent.
-

General maintenance

The following general maintenance is recommended:

- Check for any visible damage.
 - Do not use the machine if clearly damaged, i.e. frayed or bare cables are visible.
 - Report the damage, but do not attempt to make any repairs yourself.
- Follow the daily and weekly cleaning instructions.

NOTE: Refer to the Installation and Operating Manual for detailed maintenance instructions.



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