

Enter <b>Serial No.</b> here	9
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In the event of an enquiry please quote this serial number.



# **FUSION BREAD PLANT**

# IMPORTANT INFORMATION and **INSTALLATION INSTRUCTIONS**

**MONO EQUIPMENT** Queensway **Swansea West Industrial Estate** Swansea, SA5 4EB UK

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COMPLETE OPERATION AND MAINTENANCE INSTRUCTIONS ARE AVAILABLE ON CD or www.monoequip.com

**FILE 30** 



# **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 2014 / 35/ EC
- The requirements of the Electromagnetic Compatibility Directive 2004 / 108EC, 91 / 263 / EEC, 92 / 31 / EEC Incorporating standards EN55014-1:2006+A1:2009+A2:2011

EN55014-1:2006+A1:2009+A2:2011 EN55014-2:1997+A1:2001+A2:2008

- 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

G.A.Williams – Quality Manager			
Date		PROVER	
Machine	Machine	DIVIDER	
FG Code.	Serial No.	MOULDER	

#### **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

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North Lynn Industrial Estate,
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Norfolk,
PE30 2HZ

#### MONO FUSION PLANT MOULDER SETTINGS GUIDE PLEASE NOTE THAT THESE ARE APPROXIMATE SETTINGS AND SHOULD ONLY BE USED AS A STARTING POINT PRODUCT WATER MIX TIME SHEETER INITIAL FLAP REAR FLAP FRENCH LENGTH LOAF LENGTH MOULDING PRESSURE 980G BREAD 2-8 MINS UP DOWN N/A 10 260-280 9 11 520G BREAD 2-8 MINS UP DOWN N/A 6 260-280 9.3 11 UP 5 N/A N/A 550G FRENCH 2-8 MINS 5 DOWN 9.1 260G BATON 9.1 2-8 MINS 5 UP UP 7 N/A N/A



### **SAFETY**



# IF YOU ENCOUNTER ANY ISSUE WITH THIS EQUIPMENT THAT YOU HAVE NOT BEEN TRAINED FOR, YOU MUST CONTACT YOUR INSTORE TECHNICIAN.

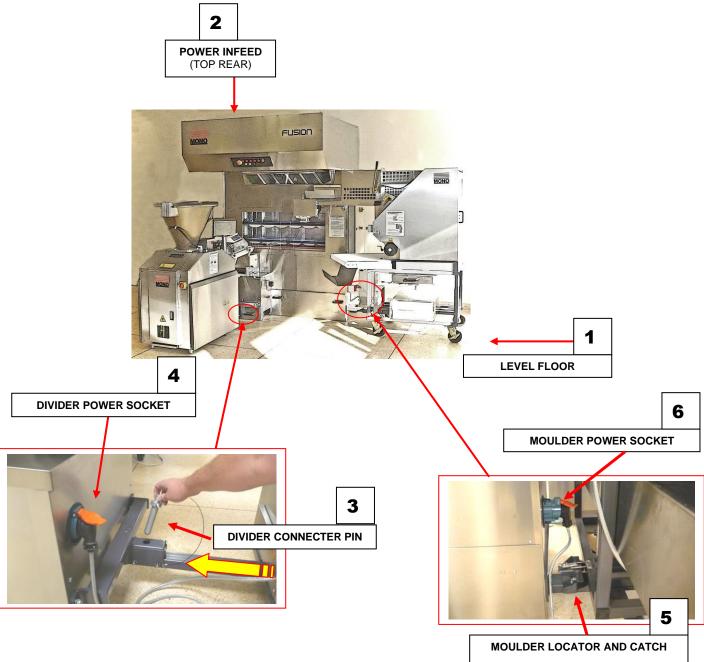
- 1 Never use a machine in a faulty condition and always report any damage.
- 2 Only trained engineers may remove any part that requires a tool to do so.
- **People undergoing training on this machine must be under direct supervision** of a fully trained person.
- 4 Use of this machine can prove dangerous if:
  - the machine is operated by untrained or unskilled staff
  - u the machine is not used for its intended purpose
  - □ the machine is not operated correctly
- 5 Always ensure hands are dry before touching any electrical appliance (including cable, switches and plugs).
- 6 Do not operate the machine with any panels or guards removed.
  - All safety devices applied to the machine during manufacture and the operating instructions in this manual, and the CD supplied, are required to operate this machine safely. The owner and the operator are responsible for operating this machine safely.



- DO NOT TRY TO DISABLE ANY SAFETY DEVICES, THEY ARE FITTED FOR YOUR SAFETY.
- 7 NEVER move machinery by pulling on the power cords or cables.
- 8 No loose clothing or jewellery should be worn while operating this machine
- 9 The bakery manager or the bakery supervisor must carry out daily safety checks on this machine.
- 10 No one under the age of 16 may operate this machine.
- 11 No one under the age of 18 may clean this machine under any circumstances.
- 12 DO NOT STAND ON ANYTHING TO LOAD THE DIVIDER HOPPER.
- 13 DO NOT STAND ON OR STORE ITEMS ON THE PROVER ROOF.

ALL CLEANING AND MAINTENANCE OPERATIONS MUST BE MADE WITH MACHINE DISCONNECTED FROM THE POWER SUPPLY.

## INSTALLATION



- 2. The plant should be positioned on a solid level floor (1).
- 3. The plant should be connected to a mains wall isolator. (Mains infeed from top/rear of prover) (2)
- 4. Connect the divider to the prover using the connecting pin (3).
- 5. Insert plug into the correct socket on the front of the prover drive box.
- 6. Connect the moulder to the prover using the locator on the moulder base and close the catch (5).
- 7. Plug moulder lead into the socket on the side of the prover (6).

# DO NOT ATTEMPT TO LIFT THE DIVIDER BY HUMAN FORCE (LIFTING)

- □ Use of a **forklift or crane** is recommended for lifting or the machine can be pushed on the castors provided.
- □ **To lift with a forklift** the machine must be secured to a pallet.
- □ To lift with a crane lifting eyes are provided.





LIFTING EYES

Check that the power rating on the serial number plate matches the supply that the machine is to be connected to.

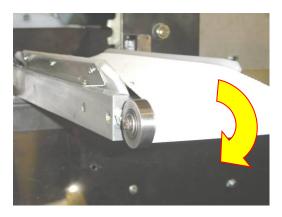
□ The Dough Divider should be connected to the correct socket on the prover.

**DIVIDER SOCKET** 



- □ Connect the electrical cable to the socket on the prover drive box front.
- □ Check the machine after installation to ensure the belt moves in the correct direction indicated (see arrow in photo below).

(If wrong - swap positions of any two of the three phase carrying wires in the plug. This should be factory set and not need to be done)



□ Fill oil tank to 2/3 level, with your company recommended food safe oil.

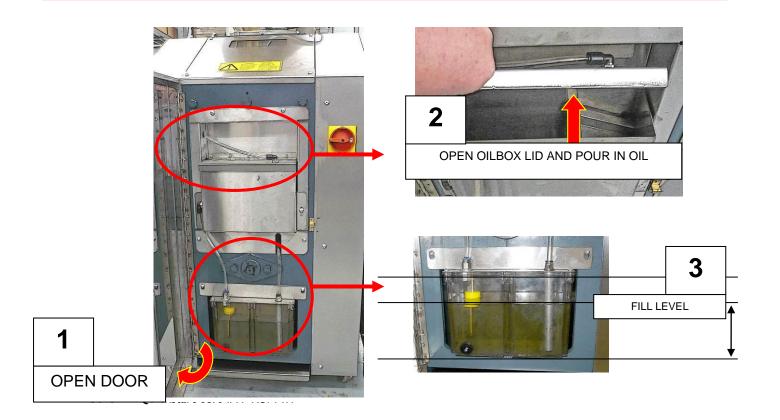
### O WARNING!

DO NOT USE ORDINARY VEGETABLE OIL FROM SHOP SHELVES, IN THE DIVIDER

THIS WILL FORM A GUM-LIKE RESIDUE,

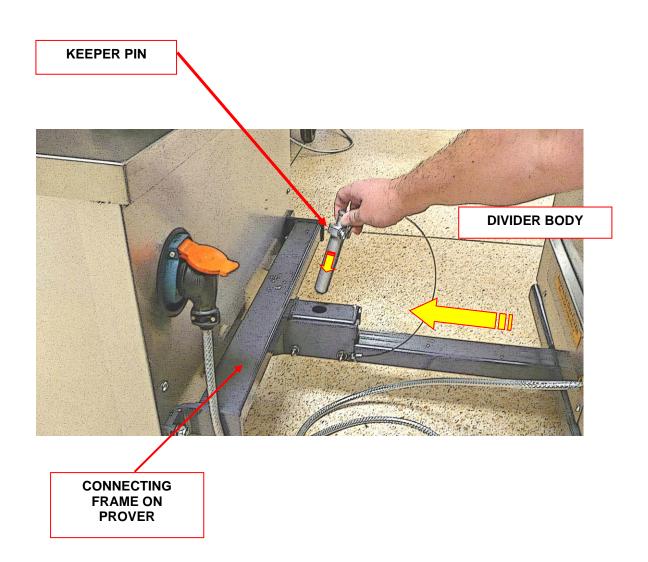
CAUSING STICKING AND POSSIBLE DAMAGE TO THE MACHINE.

MONO RECOMMENDS THE USE OF "CRODA SUPER WUNDROL" (AVAILABLE FROM MONO. PART NUMBER "A900-25-272")



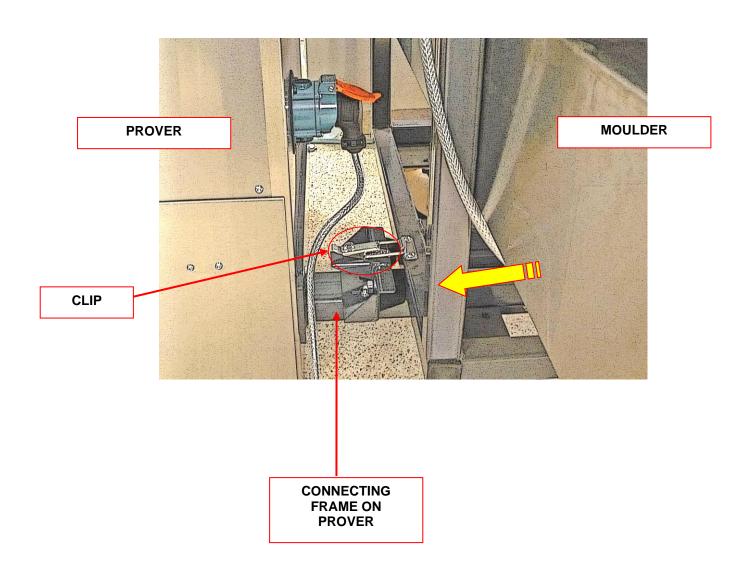
# Positioning Divider.

- 1 Ensure the divider is standing on a solid level floor.
- **2** Correctly position the divider using the male locator.
- 3 The locator should be pushed in until the end of it pushes up against the stop and the holes line up.
- **4** Drop the keeper pin in the holes.
- **5** After the connection is made, lock the two front castors into place.



# Positioning Moulder.

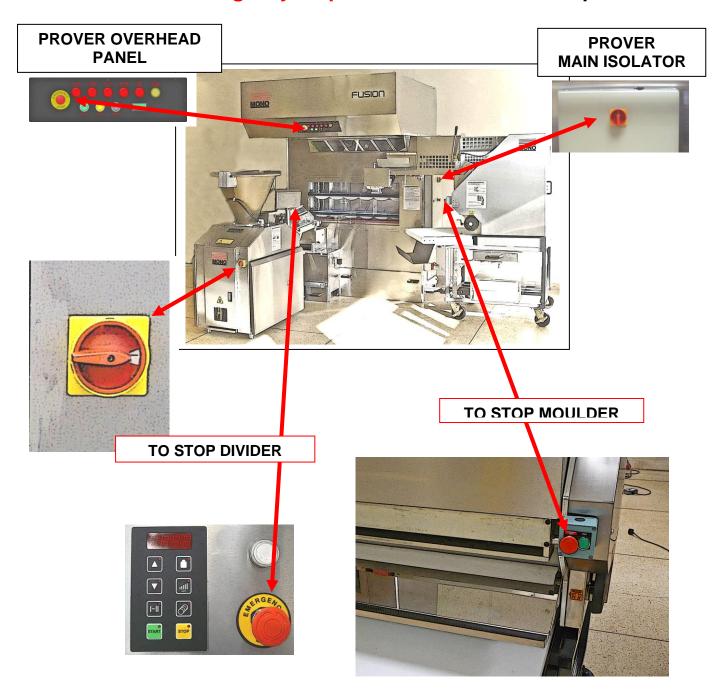
- 1 Ensure the moulder is standing on a solid level floor.
- 2 Correctly position the moulder using the male locator on the base.
- 3 The locator should be pushed in until the end of it pushes up against the stop and the clip lines up.
- 4 Fasten the clip
- 5 After the connection is made, lock the two locking castors into place.





## TO STOP THE BREAD PLANT IN AN EMERGENCY

Switch off at the main isolator, or use the emergency stop button on the overhead panel



### **WARNING**

Except in an emergency, do not halt the prover with dough in the carriers and leave it. Dough will adhere to the pockets and may cause the prover to malfunction.

USE THE "PARK" BUTTON TO STOP THE PROVER IF NOT AN EMERGENCY.

# **OPERATION** of the breadplant

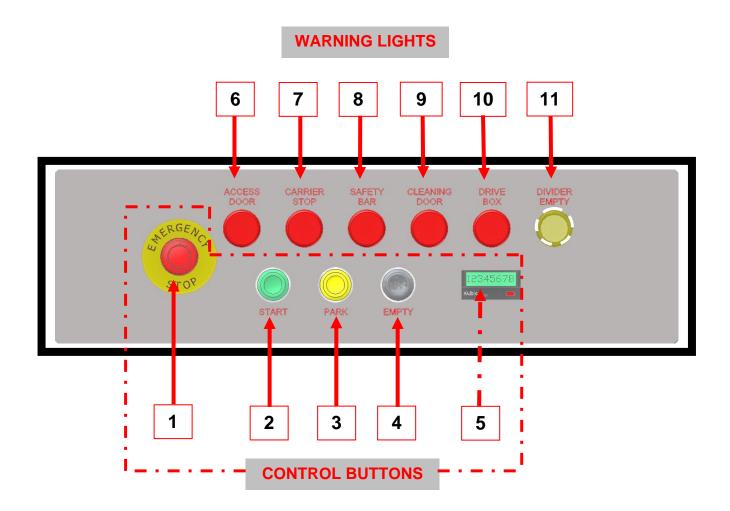
# THE CONTROLS EXPLAINED

Dough pieces are transferred from the divider via a chute to a carrier pocket in the prover. As dough travels down the chute and into the pocket, an electronic eye is triggered which causes the carriers to move one position ready for the next dough piece.

After two minutes of nothing passing the sensor (divider empty), a flashing light and buzzer starts to alert the operator.

The prover can then either be run in empty mode, to empty the dough to the moulder, or the divider started and the prover loading continued.

### **MAIN CONTROL PANEL**



# **MAIN PANEL**

#### **EMERGENCY STOP (1)**

Stops the prover in an emergency.

Release by pushing and turning.

NOTE. Do not use this to stop the prover except in an emergency, as dough position may cause problems.

#### **START BUTTON (2)**

Starts the prover in auto mode.

(No movement will happen until dough passes the sensor on the chute.)

#### **PARK (3)**

Use this to stop the prover carriers in the best operating position.

Always use this to stop the prover except in an emergency.

#### **EMPTY (4)**

For use when the divider has completed operation and the prover needs to continue moving to feed the moulder.

#### COUNTER (5)

Counts pieces of dough entering prover from divider.

Press button to reset to 0 before a production run.

NOTE. Reset is required after power is disrupted or the power is first switched on.

Press button to reset to 0 before a production run.

NOTE. Reset is required after power is disrupted or the power is first switched on.

#### Warning

Avoid stopping machine with dough left in the pockets, as after a time it will adhere to the pockets and cause the machine to malfunction.

ALWAYS CHECK THE POCKETS FOR ADHERING DOUGH AND REMOVE AS SOON AS POSSIBLE. DO NOT WAIT FOR DAILY CLEANING IF IN DOUBT.

# **WARNING LIGHTS**

#### **ACCESS DOOR (6)**

Main overhang cleaning door not positioned correctly.

#### **CARRIER STOP (7)**

Carrier stop switch activated.

Switch off power at main isolator (1).

Check for correct position of carriers in the overhang.

Dough may have caused a carrier to swing incorrectly at the turnover stage.

If removing the dough piece cannot rectify the cause, call for maintenance.

#### SAFETY BAR (8)

Red safety bar across lower edge of main windows has been activated. Clear obstruction and restart prover.

#### **CLEANING DOOR (9)**

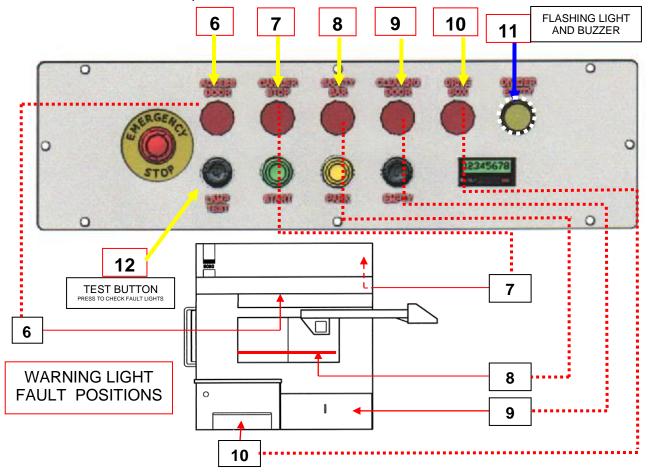
**DRIVE BOX (10)** Front lower cleaning door not positioned correctly.

Check that the drive box drawer is closed.

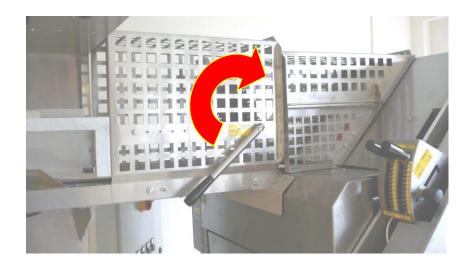
The prover will not work unless the drawer is replaced after cleaning.

#### **DIVIDER EMPTY (11)**

After two minutes of nothing passing the sensor (divider is empty), a flashing light and buzzer starts to alert the operator.



# **MOULDER INFEED CONVEYOR CURLING CHAIN**



Position the curling chain lever to the required position Either "loaf" or "French" as shown below.



FLOUR DUSTER OPERATION
TO ENSURE AN EVEN FLOW, ONLY USE CLEAN, DRY FLOUR.



**DUSTER LOCATION** 



OPEN LID AND FILL WITH DRY FLOUR, THEN CLOSE THE LID



TURN ON POWER WHEN REQUIRED



ADJUST THE FLOW BY LOOSENING THE BLACK KNOB AND MOVING TO THE REQUIRED POSITION. RETIGHTEN KNOB.

# How to operate the FUSION BREADPLANT

- 1. Ensure the prover power is connected and main isolator is on.
- 2. Ensure that the divider is in position and plugged into the prover.
- 3. Ensure the moulder is in position and plugged into the prover. Adjust the moulding settings for the product required.
- 4. Set the moulder infeed conveyor curling chain position. (Loaf or French).
- 5. Press the "start" button (2) on the prover and the reset button on the counter. The prover will now be ready to receive dough.
- 6. Load the divider hopper with dough.
- 7. Start the divider (green button on divider) and adjust weights as instructed in the divider section of this manual.
- 8. When satisfied with the dough weights, allow the dough to enter the prover. The prover will move to the next carrier every time it senses a dough piece.
- 9. If the prover does not sense a dough piece for 2 minutes, the "Divider Empty" light will flash and a sounder will be heard.
- 10. If the divider is empty or the light is flashing, push the empty button (4) and the prover will keep moving to prove the dough and empty to the moulder.
- 11. When the dough reaches the moulder, the moulder will start and the moulded dough pieces should be collected and placed on trays or in tins as required.
- 12. If the prover needs to be stopped during operation, use the yellow "park" button (3), not the emergency stop button. This will ensure that the prover is stopped in a position that will not allow dough pieces to jam the system. The moulder and prover offtake conveyor will continue to run for 30 seconds to ensure the dough path is cleared.

#### NOTE

THE EMERGENCY STOP ON THE DIVIDER WILL STOP THE DIVIDER.

THE EMERGENCY STOP ON THE MOULDER WILL STOP THE MOULDER.

THE EMERGENCY STOP ON THE PROVER WILL STOP ALL MACHINES.

If emergency stop switches are activated on the divider (opening hopper guard etc), the stop reset button on the divider control panel must be pressed. If the pressure board is opened (for cleaning etc), then the emergency stop switch must be pressed, twisted to release and then the reset switch pressed.

## PROVER CLEANING INSTRUCTIONS

### **DAILY**

NOTE:

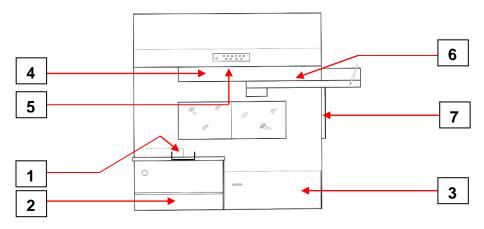
#### **ISOLATE MACHINE FROM MAINS SUPPLY BEFORE CLEANING.**

CLEANING SHOULD ONLY BE CARRIED OUT BY FULLY TRAINED PERSONNEL

- DO NOT USE A HIGH PRESSURE WASHER
- DO NOT USE SOLVENTS OF ANY KIND

KEEP CLEANING FLUIDS AWAY FROM ELECTRICAL SWITCHES

- 1. Brush the infeed chute (1) ensuring the dough sensor and reflector are clean.
- 2. Remove the drive box drawer (2) and wash thoroughly, dry and replace.
- Lift slightly and withdraw the cleaning drawer (3) and remove any dough. Wash thoroughly, dry and replace.
- 4. Remove the clear transfer window (4) by lifting out of the location channels. Wash and dry.
- 5. Wipe the window location channels and replace the window.
- 6. Open the main overhang door (5) (lift, slide back, then hinge down) and check for fallen pieces of dough inside. Brush rear of door and close.
- 7. Brush the conveyor area(6) and wipe clean the metalwork, paying attention to the inner sides where dough can collect..
- 8. Wipe over the control box (7) with a damp cloth (do not allow moisture to enter the panel).
- 9. Brush down the outer sheeting of the machine.



LEET HAND VERSION SHOWN

KEEP WATER AWAY FROM THE MAIN CONTROL PANEL AND ELECTRICAL CONNECTION SOCKETS.

# **DIVIDER CLEANING INSTRUCTIONS**

### **DAILY**

NOTE:

#### ISOLATE MACHINE FROM MAINS SUPPLY BEFORE CLEANING.

CLEANING SHOULD ONLY BE CARRIED OUT BY FULLY TRAINED PERSONNEL

- DO NOT USE A HIGH PRESSURE WASHER
- DO NOT USE SOLVENTS OF ANY KIND
- KEEP CLEANING FLUIDS AWAY FROM ELECTRICAL SWITCHES
- 1 REMOVE DOUGH RESIDUE FROM INTERIOR OF HOPPER. (ONLY USE PLASTIC SCRAPER)
- 2 SMEAR INTERIOR OF HOPPER WITH DIVIDER OIL.
- 3 CHECK OIL LEVEL IS CORRECT. RUN THE MACHINE FOR A MINUTE, USING ON/OFF BUTTONS. (THIS WILL STOP THE MACHINE FROM SEIZING UP BY COATING THE DRUM WITH OIL)





### OFF TAKE CLEANING

- 1 LOOSEN THE TWO BLACK KNOBS ON THE SIDE OF THE PRESSURE BOARD.
- 2 LIFT THE PRESSURE BOARD AWAY FROM YOU.

# HELP MAY BE REQUIRED TO HOLD THE PRESSURE BOARD WHILE CLEANING TAKES PLACE.

- 3 REMOVE DOUGH RESIDUE AND BRUSH EXPOSED PARTS.
- 4 SCRAPE AND WIPE DOWN BELT. (ONLY USE **PLASTIC SCRAPER**).
- 5 REMOVE DOUGH RESIDUE FROM CONVEYOR METALWORK AND BELT SURFACE.
- 6 LOWER PRESSURE BOARD AND CLOSE COVER, TIGHTENING THE TWO BLACK KNOBS ON THE SIDE OF THE PRESSURE BOARD.

### **EXTERNAL CLEANING**

- 1 BRUSH OFF FLOUR RESIDUE AND SCRAPE AS NECESSARY. (ONLY USE PLASTIC SCRAPER)
- 2 BRUSH OFF LOOSENED DOUGH.
- 3 MAKE UP STERILISING SOLUTION AND HOT WATER.
- **4** CLEAN EXTERIOR OF MACHINE AS NECESSARY WORKING FROM TOP TO BOTTOM.
- 5 SWAB DRY WITH DISPOSABLE TISSUE.

# **MOULDER CLEANING INSTRUCTIONS**

# **DAILY**

NOTE:

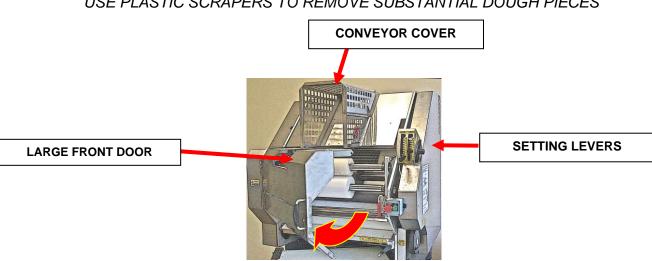
#### ISOLATE MACHINE FROM MAINS SUPPLY BEFORE CLEANING.

CLEANING SHOULD ONLY BE CARRIED OUT BY FULLY TRAINED PERSONNEL

- DO NOT USE A HIGH PRESSURE WASHER
- DO NOT USE SOLVENTS OF ANY KIND

KEEP CLEANING FLUIDS AWAY FROM ELECTRICAL SWITCHES

**NOTE! -** PRIOR TO CLEANING. USE PLASTIC SCRAPERS TO REMOVE SUBSTANTIAL DOUGH PIECES



- 1. ISOLATE THE MAINS SUPPLY, UNCLIP THE POSITIONING CLAMP AND PULL THE MOULDER AWAY FROM THE PROVER
- 2. LIFT CONVEYOR COVER AND BRUSH AREA.
- 3. PULL OPEN LARGE FRONT DOOR TO EXPOSE ROLLERS.
- 4. SET SHEETING GAP TO THE WIDEST MARK AND BRUSH OUT RESIDUE FROM THE AREA, USING A PLASTIC SCRAPER ON THE ROLLERS IF REQUIRED.



**SET SHEETING GAP** 

- 5. CLEAN ANY RESIDUE THAT HAS BEEN TRAPPED AT THE BOTTOM OF THE BELT. SCRAPE EXPOSED SURFACE OF THE DOUGH-MOULDING BELT WITH A **PLASTIC** SCRAPER.
- 6. BRUSH/VACUUM THE AREA AND CLOSE DOOR.

See the full manual for detailed instructions on removing scrapers and pressure board etc.