

www.monoequip.com

SERIAL NO. _____
In the event of an enquiry please quote this number.



MONO MINI MOULDER

OPERATING AND MAINTENANCE MANUAL


Failure to adhere to the operation, cleaning and maintenance instructions
detailed in this manual could affect the warranty of this machine.



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	
G.A.Williams – Quality 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

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1.0 INTRODUCTION

The Mono Mini Moulder is an ideal machine for the small bakery and will provide perfect moulding for all morning goods, as well as bread.

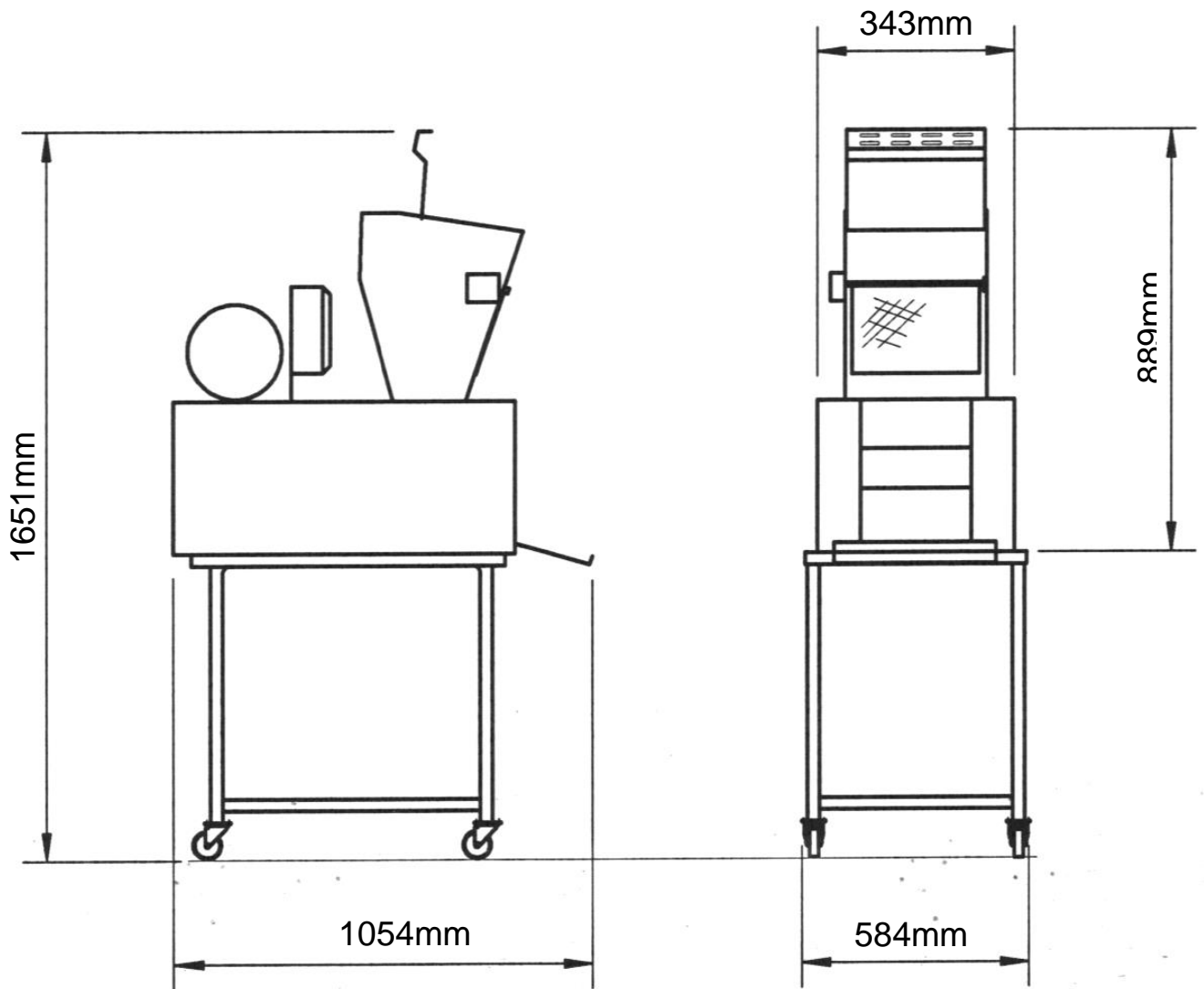
Fully adjustable sheeting rolls allow the mini moulder to be adjusted for dough pieces of varying consistency and size, ranging from 28g – 900g.

Special pressure boards and dough path inserts are available to increase the machines versatility making it ideal for the production of finger rolls.



All outer surfaces are manufactured from easy to clean stainless steel.

2.0 DIMENSIONS



Height: Table top **889mm**
with stand 1651mm

Width: Table top **343mm**
with stand 584mm

Length: **1054mm**

3.0 SPECIFICATIONS

Electric: Single or 3ph + N

Weight: Table top 110kg.
With stand 129kg

Noise Level: Less Than 85 dB.

Output: up to 1000 dough pieces an hour

Power output 0.37Kw ; single or 3ph + N

4.0 SAFETY

- 1 Never use a machine in a faulty condition and always report any damage.
- 2 No-one under the age of 16 may operate this machine.
- 3 No-one under the age of 18 may clean this machine under any circumstances.
- 4 Only trained personnel may remove any part from this machine that requires a tool to do so.
- 5 Always ensure hands are dry before touching any electrical appliance (including cable, switch and plug).
- 6 All operatives must be fully trained.
- 7 People undergoing training on the machine must be under direct supervision.
- 8 Do not operate the machine with any panels removed.
- 9 All guards must be fixed in place with bolts or screws unless protected by a safety switch.
- 10 No loose clothing or jewellery to be worn while operating the machine.
- 11 Switch off power at the mains isolator when machine is not in use and before carrying out any cleaning or maintenance.

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

- 12 The Bakery Manager or the Bakery Supervisor must carry out daily safety checks on the machine.

5.0 INSTALLATION

- 1 The Multi Moulder should be connected to a mains wall isolator.
- 2 When installing machines with 3 phase electrics check :-
At the discharge end of the machine the upper belt surface should travel back into the machine - *see direction of arrow in photograph.*
If belt direction is incorrect, change any two of the three phase wires in the plug and check travel again.



CHECK THE DIRECTION OF THE
MOULDING BELT TRAVEL
BEFORE COMMENCING
PRODUCTION

- 3 Ensure machine is standing on a solid level floor

6.0 ISOLATION

To stop the multi moulder in an emergency, switch off at the wall isolator or at the machine's stop button.



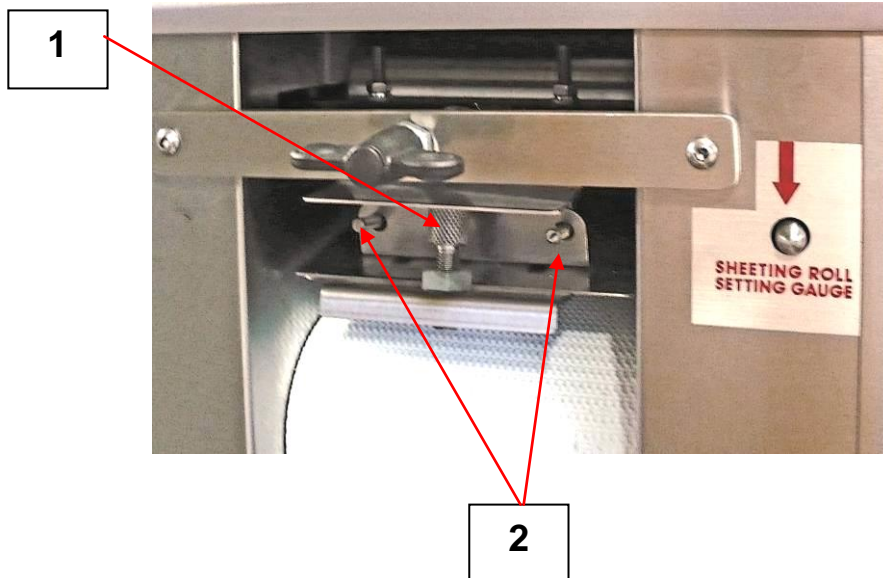
**STOP
BUTTON**

7.0 CLEANING INSTRUCTIONS

NOTE:- SWITCH OFF AND ISOLATE FROM THE MAINS SUPPLY BEFORE COMMENCING ANY CLEANING.

Daily cleaning

- 1 Scrape off any dough residue with a plastic scraper.
- 2 Wipe over perspex window on hopper with cloth dampened in approved sterilising solution and hot water.

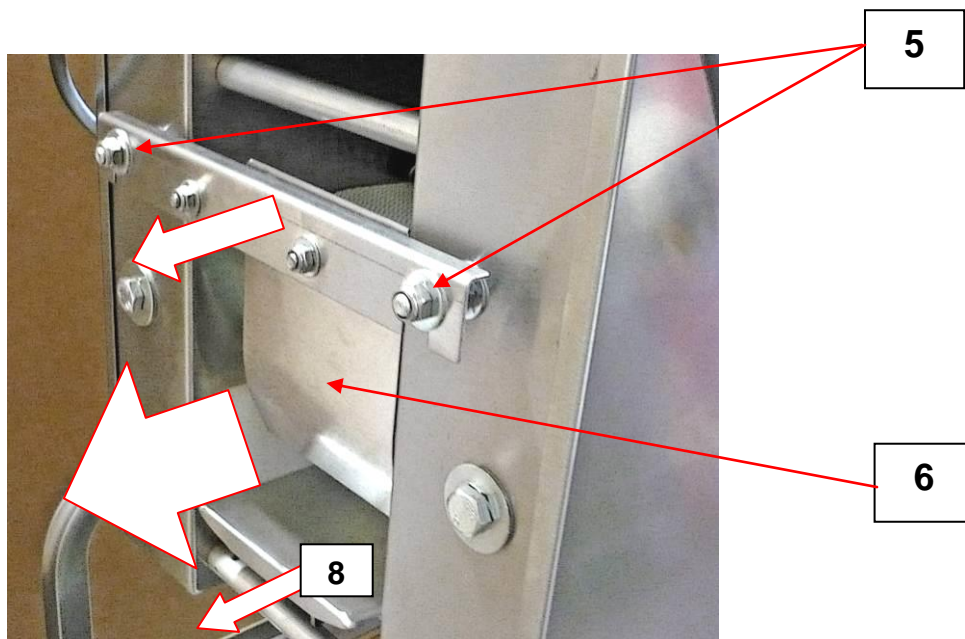


- 3 Turn down knurled bolt (1) and withdraw front scraper from retaining hooks (2). Wipe clean and replace.

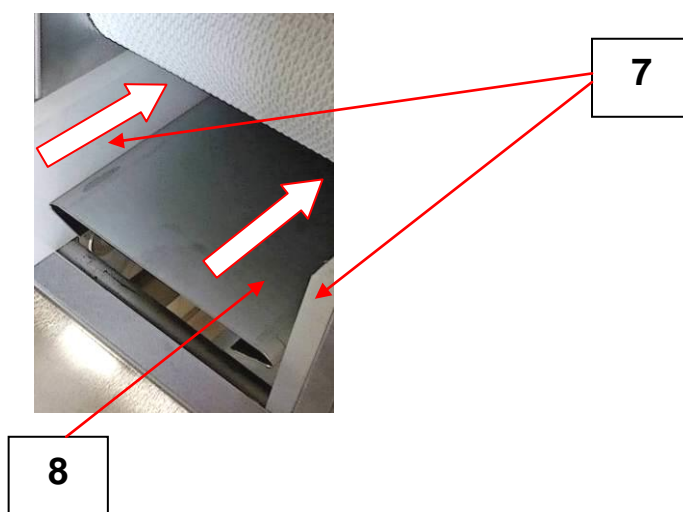


- 4 Remove cover on top behind hopper. Loosen wing bolt (3) and lift out rear scraper (4). Wipe clean and refit.

5 Undo nuts (5) and remove dough return plate (6). Clean and refit



6 Remove side cheeks (7) by sliding out of machine to the rear. Wipe clean.



7 Slide out pressure board (8) to the rear and wipe clean.

8 Clean conveyor belt area with a damp cloth and scraper. Connect machine to the power supply and turn on machine for a short time to expose the uncleaned part of the belt. Disconnect power supply. Clean remaining part of belt and replace all parts removed for cleaning.

9 Wipe outside parts of the machine paying attention to handles, levers and controls.

Every three months an engineer should remove the side sheets and check, clean and lubricate the inner parts.

8.0 OPERATING CONDITIONS ---

For best results the Multi Moulder should be used on a solid, level floor and all operating and cleaning instructions should be followed meticulously.

9.0 GENERAL REMARKS REGARDING MACHINE MOULDING OF DOUGH. ---

IT IS NOT RECOMMENDED THAT DOUGH PIECES OR THE MOULDING BELT ARE SPRINKLED WITH FLOUR AS THIS WILL CAUSE MOULDING FAULTS.

Where dough is hand weighed prior to moulding it is important that **as little flour as possible is used when handling.**

If floury dough pieces are fed into the machine, a poor mould will result giving a bad seal on the dough piece.

A brief rest of the dough piece is desirable prior to moulding.

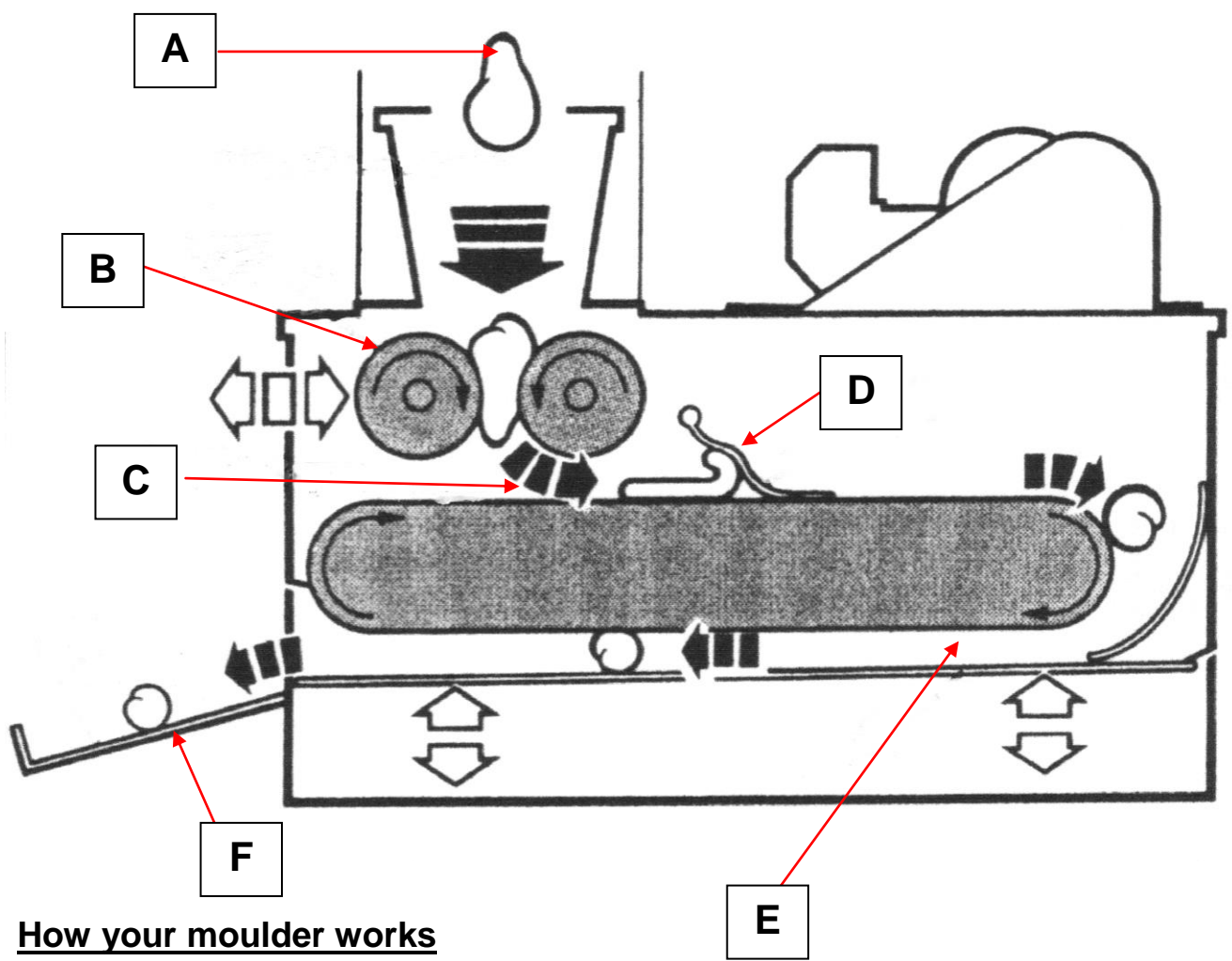
If a stock of scaled dough pieces can be built up by using trays, or a large table, and then fed to the moulder starting with the first piece scaled, a decided improvement will be seen in the moulding.

The action of the MONO Multi Moulder consists of sheeting out, curling, and final moulding of the dough piece under pressure.

Avoid allowing dough pieces to acquire a “skin” as these could be difficult to mould.

Attention to the setting of the moulder will be amply repaid in the superb results that this machine is capable of producing.

10.0 OPERATING INSTRUCTIONS



How your moulder works

Dough piece is fed in to the hopper (A).

Rollers form a sheet of dough (B).

Sheet is carried along to the curling chain (C).

Curling chain picks up leading edge of sheet and forms a roll of dough (D).

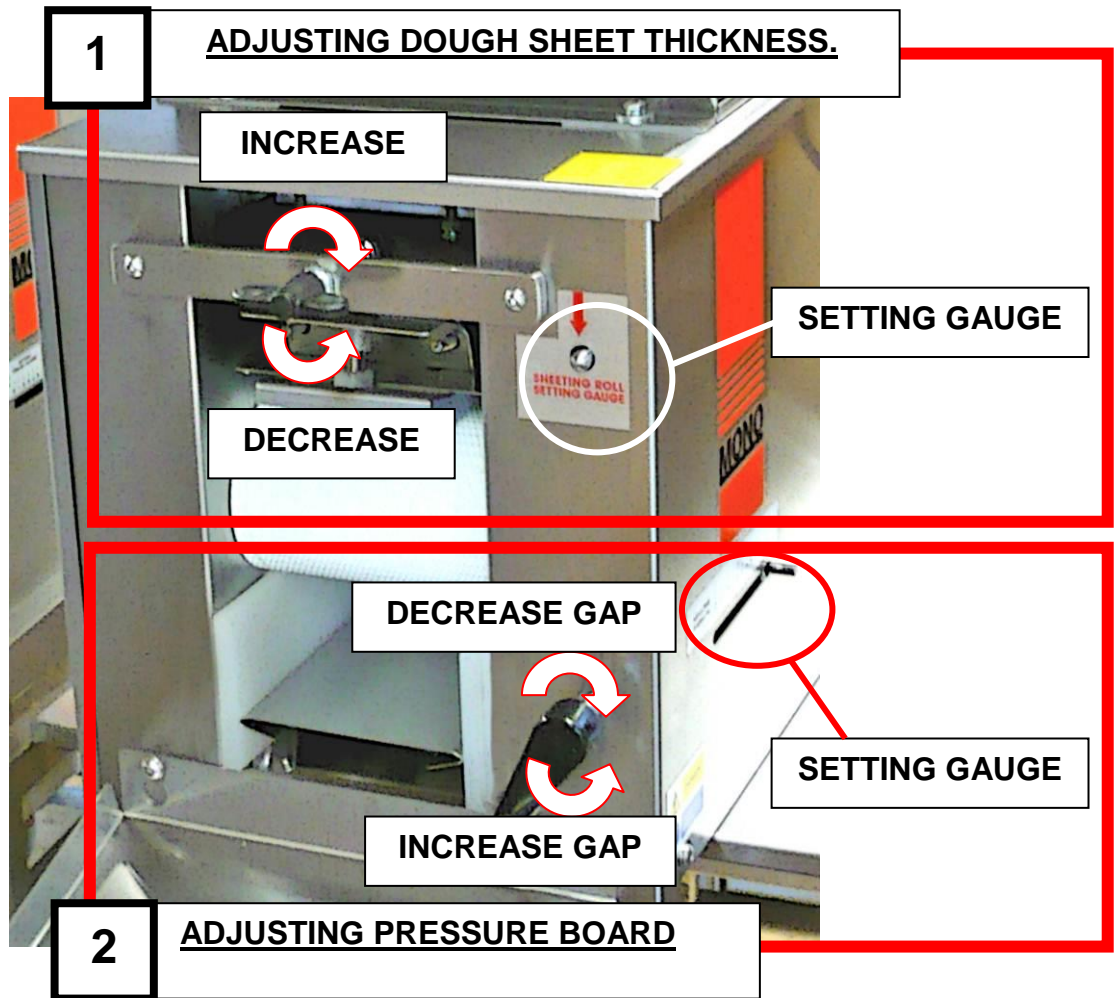
Rolled dough piece is carried round end of conveyor and over the pressure board (E).

Finished moulded dough rolls in to the collection tray (F).

STARTING MOULDER

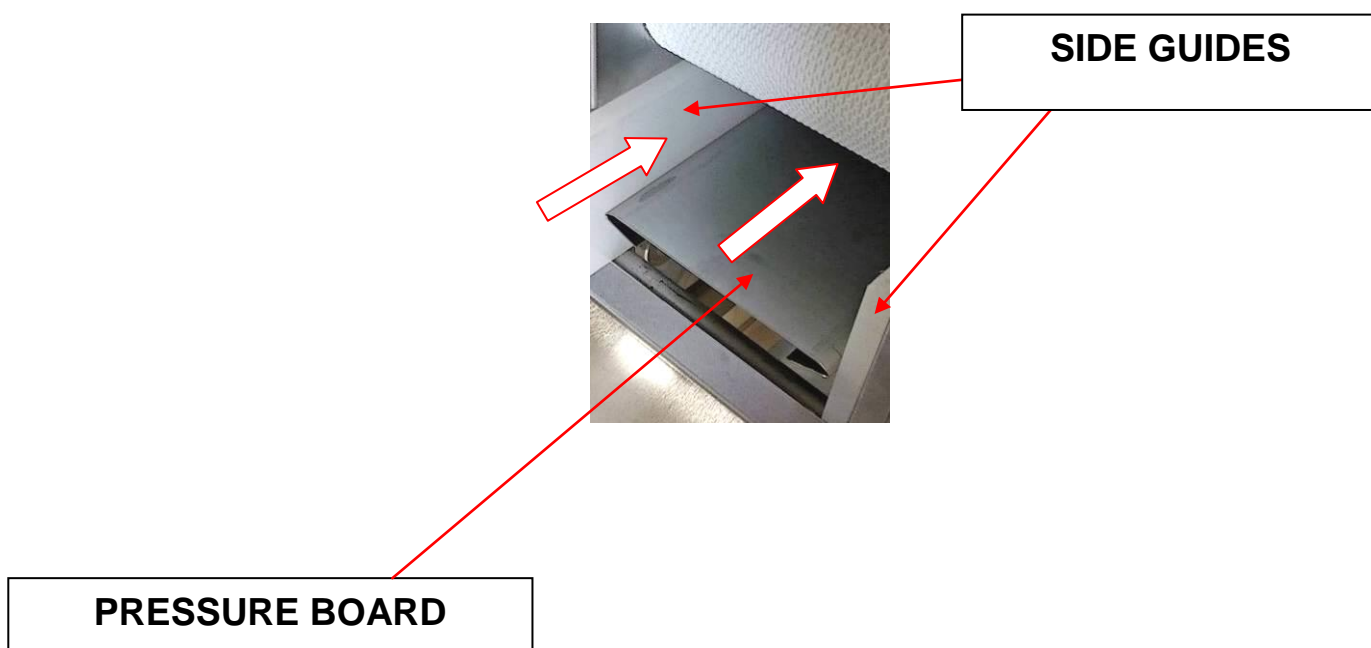


ADJUSTMENTS



1. Turn the adjusting knob for the sheet thickness required. The setting gauge indicates the roller gap in 3mm increments.
2. Turn the adjusting handle to adjust the gap between the pressure board and the conveyor. This moulding pressure should be set to the minimum required to achieve a uniform mould.

FITTING OPTIONAL PRESSURE BOARDS



To reduce the width of the dough path for finger rolls etc. the side guides and pressure board have to be changed.

1. Withdraw the pressure board out of the rear of the machine.
2. Withdraw the side cheeks from the rear.
3. Slide the reduced width pressure board in from the rear.
4. Slide the thicker side cheeks in from the rear.
5. Adjust the machine settings as necessary.

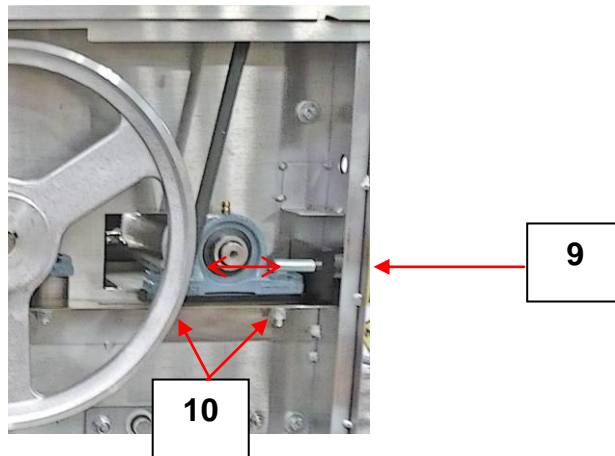
11.0 MAINTENANCE

IMPORTANT

BEFORE REMOVING THE SIDE SHEETS OR MOTOR COVER, OR CARRYING OUT ANY CLEANING OR MAINTENANCE PROCEDURES, THE MACHINE MUST BE DISCONNECTED FROM THE MAINS SUPPLY.

MOULDING BELT ADJUSTMENT

- 1 The tension of the moulding belt rarely requires adjustment. Should the belt show signs of slipping, then the side sheets must be removed. After loosening the two bearing clamp bolts on each bearing (10), take up the slack by a small amount of equal adjustment of the belt tensioning bolts (9). Make sure the bearing bolts are tightened after adjustment.



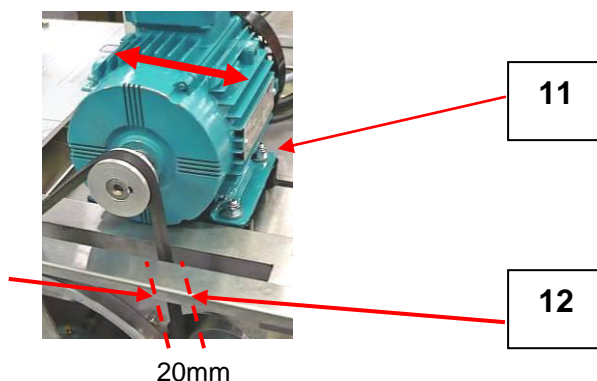
EVERY THREE MONTHS

- 1 Once every three months the side sheets must be removed and the inside of the machine thoroughly brushed clean. The chain drive can also be given a light greasing, if required.
The bearings fitted to the machine will not normally require lubricating as they are sealed.

DRIVE BELT ADJUSTMENT

- 2 The drive belt from the motor rarely requires adjustment. If this becomes necessary, then adjust the motor in the desired direction by slackening off the four bolts (11) which secure the motor to its mounting. Tighten the bolts when the correct tension (12) is achieved.

NOTE:- WHEN BELT TENSION (12) IS CORRECTLY ADJUSTED, THE MAXIMUM TOTAL MOVEMENT OF THE BELT AT THE CENTRE POINT OF ITS RUN SHOULD BE 20mm.



12.0 MOULDER WILL NOT START

If moulder does not start check:-

- 1 that the **power supply** is switched on.
- 2 that the **hopper door** is closed.

If machine still does not run call Mono Service Department.

13.0 SERVICE

If a fault arises, please do not hesitate to contact the Customer Service Department, quoting the **machine serial number** on the silver information plate of the machine and on the front cover of this manual

MONO

**Queensway
Swansea West Industrial Estate
Swansea.
SA5 4EB
UK**

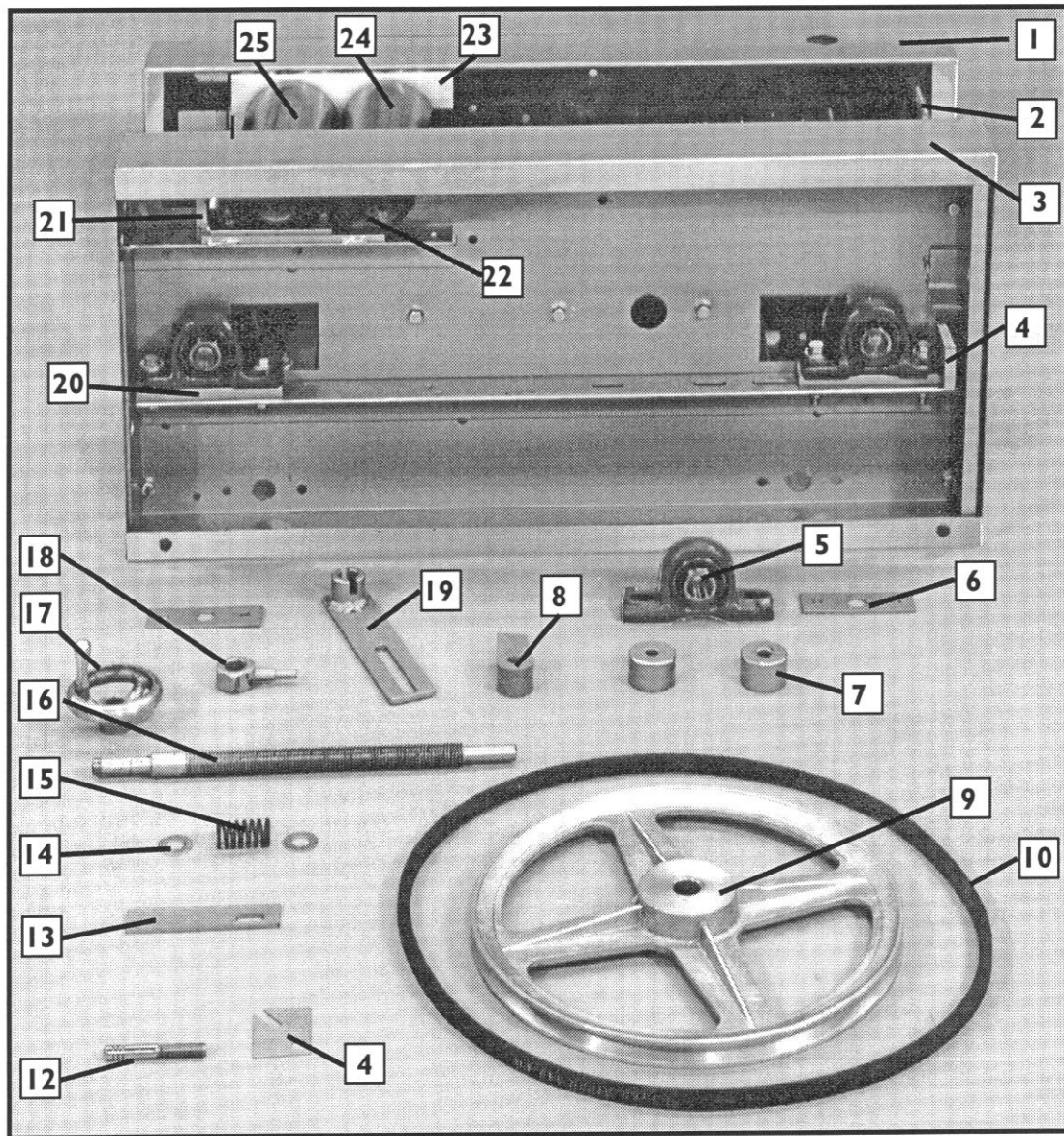
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Spares Tel. +44(0)1792 564039**

Web site: www.monoequip.com

**Main Tel. 01792 561234
Fax. 01792 561016**

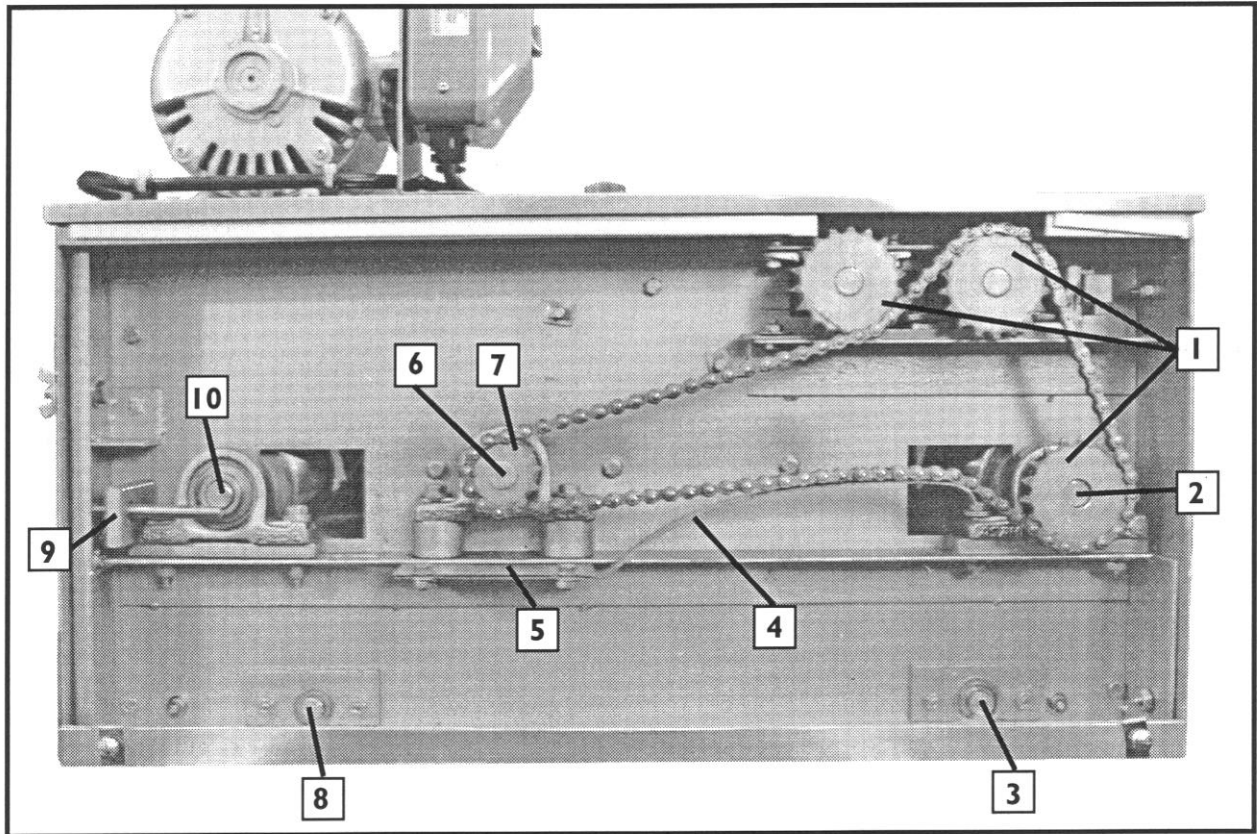


14.0 SPARES

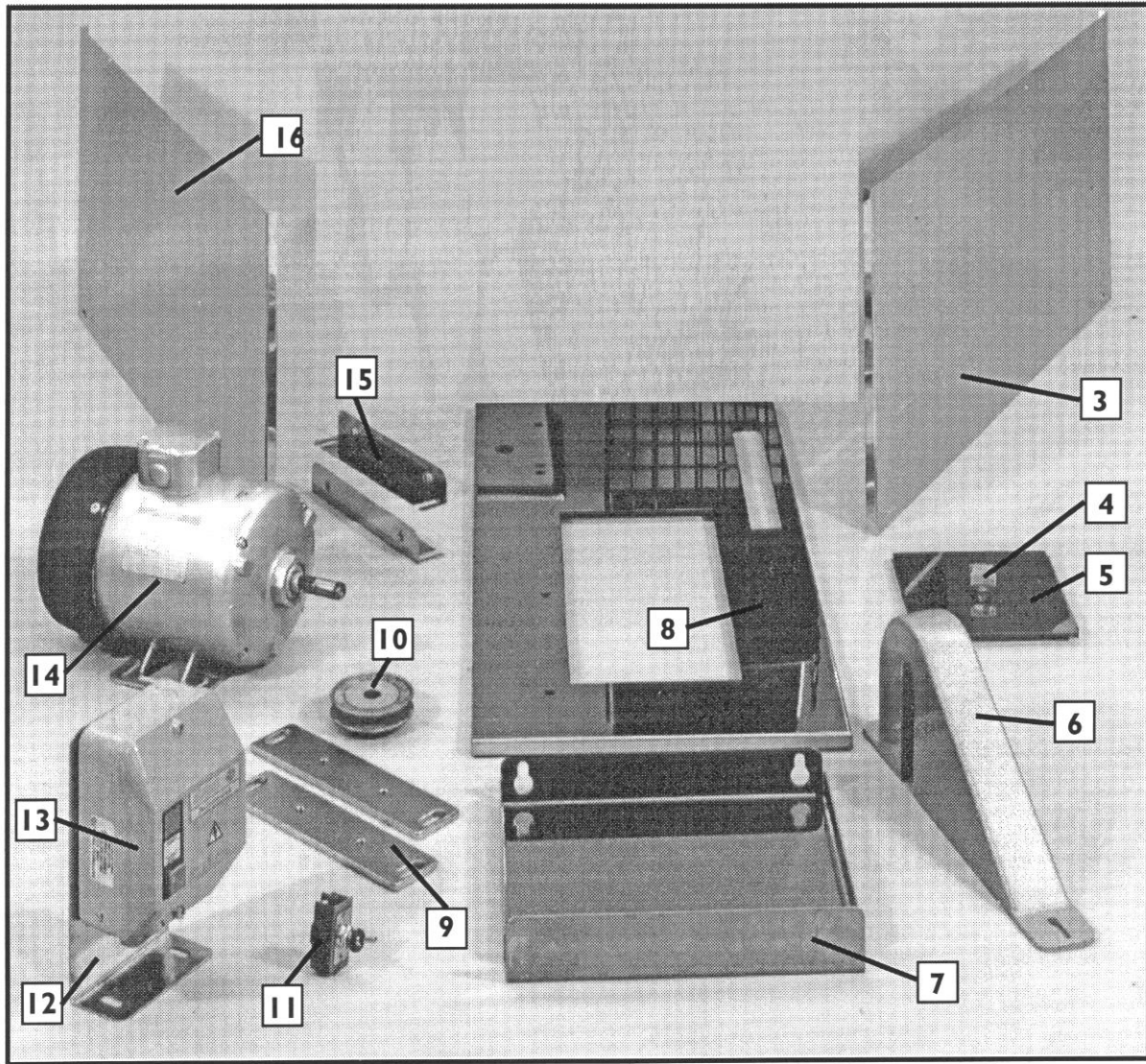


ITEM	PART No.	DESCRIPTION	QTY	ITEM	PART No.	DESCRIPTION	QTY
1	M007-02D014	Side Frame Assy LH	1	20	M007-03D011	Bearing Sole Plate	2
2	M007-02D021	Plain Spacer Bar	3	21	M007-05D002	Sheeting Roll Bearing Bracket	2
3	M007-02D002	Side Frame Assy RH	1	22	M007-05D035	Bearing Assy	4
4	M007-03D007	Bearing Plate Live Roll	1	23	P700-03-061	Double Side Cheek	2
5	A900-06-023	Bearing	6	24	M007-05D008	Sheeting Roll Assy	1
6	M007-04D002	Toggle Bearing Plate	4	25	M007-05D008	Sheeting Roll Assy	1
7	M007-08D003	Bearing Spacer	4			or, special items:--	
8	P700-05-014	Rocker Shaft Bearing	1	25	M007-05D030	Sheeting Roll Assy for Dough Claw	1
9	A900-09-011	Pulley	1			and M007-05D032	Sheeting Roll Dough Claw Pin 1
10	A900-21-029	Belt	1				
11	M007-05D011	Indicator Fixing Plate	1				
12	M007-05D012	Sheeting Roll Gap Indicator	1				
13	M007-05D006	Sheeting Roll Bracket Stop	1				
14	A900-05-023	Washer	2				
15	A900-19-013	Spring	1				
16	M007-04D020	Swing Plate Indicator Screw	1				
17	A900-27-022	Handle	1				
18	M007-04D022	Swing Plate Indicator	1				
19	M007-04D004	Swing Plate Indicator Arm	1				

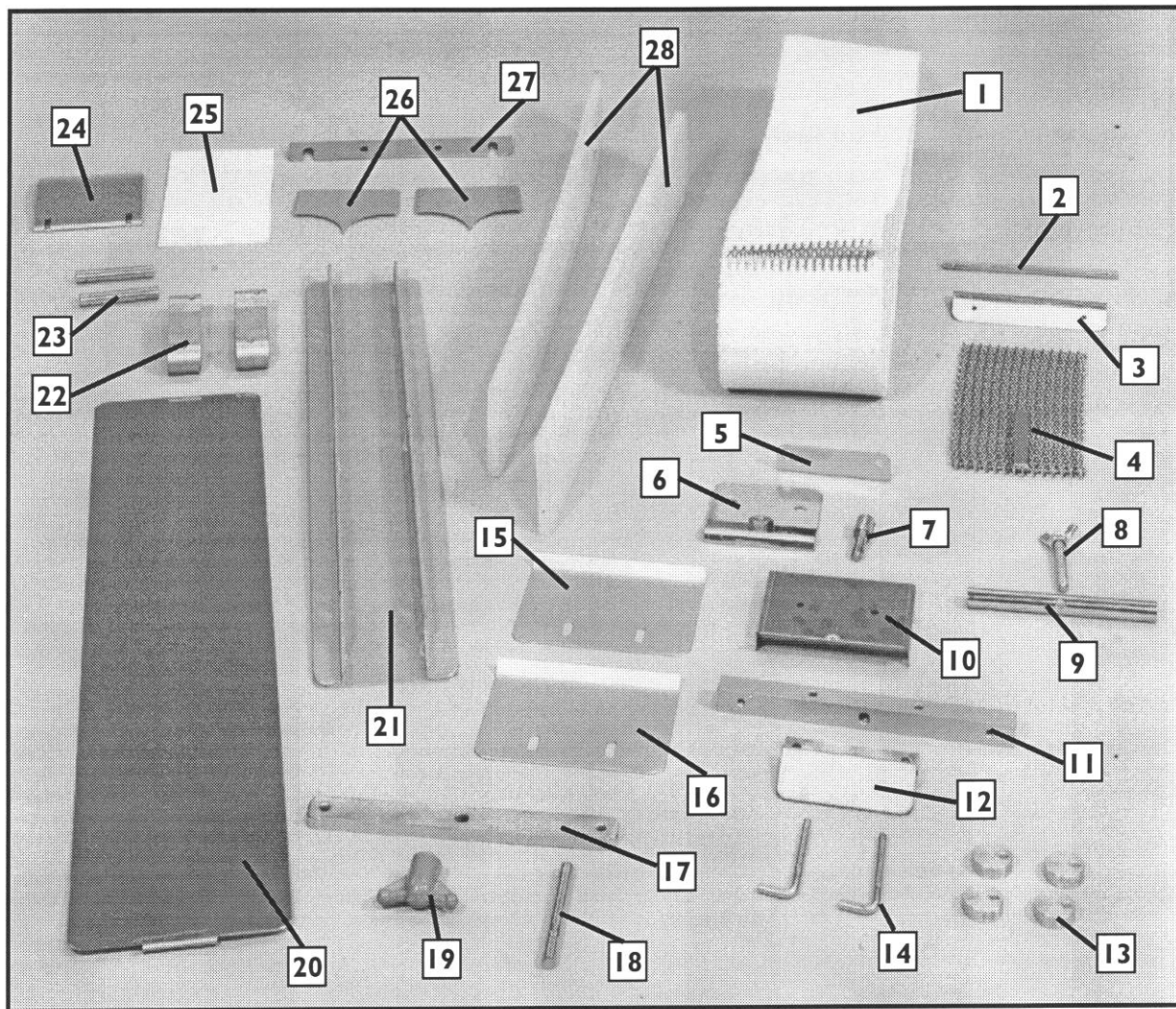
ORDERING SPARE PARTS
 When ordering spare parts, always supply the following information: -
 1. Machine model.
 2. Machine serial number.
 3. Part number.



ITEM	PART No.	DESCRIPTION	QTY
1	A900-07-015	18T Sprocket	3
2	M007-03D014	Drive Roll Assy	1
3	M007-04D008	Long Toggle Shaft	1
4	M007-08D011	Chain Tensioner	1
5	M007-08D006	Chain Tensioning Plate	1
6	M007-08D002	Pulley Shaft	1
7	A900-07-004	12T Sprocket	1
8	M007-04D010	Short Toggle Shaft	1
9	M007-03D010	Bearing Plate Live Roll LH	1
10	M007-03D019	Live Roll Assy	1



ITEM	PART No.	DESCRIPTION	QTY
3	M007-02D02400	SIDE SHEET (SLOTTED)	1
4	P700-04-018	THUMB SCREW	1
5	M007-02D02800	TOP COVER	1
6	M007-08D00500	BELT GUARD	1
7	M007-02D02900	OFF TAKE TRAY	1
8	M007-02D02700	TOP SHEET	1
9	M007-08D00400	MOTOR MTG BAR	2
10	A900-09-007	PULLEY	1
12	M007-02D03000	STARTER BRACKET	1
13	B850-03-001	1 PHASE STARTER 50HZ	1
	B850-01-004	1 PHASE OVERLOAD 50HZ	1
	OR		
	B850-03-001	1 PHASE STARTER 60HZ	1
	B850-01-004	1 PHASE OVERLOAD 60HZ	1
	OR		
	B850-03-001	3 PHASE STARTER	1
	B850-01-001	3 PHASE OVERLOAD	1
14	B809-74-015	1 PHASE MOTOR	1
	B809-74-806	3 PHASE MOTOR	1
	B809-74-053	1PHASE MOTOR (60HZ)	1
15	M007-07D00400	GUARD SECURING BKT	1
16	M007-02D02300	SIDE SHEET	1



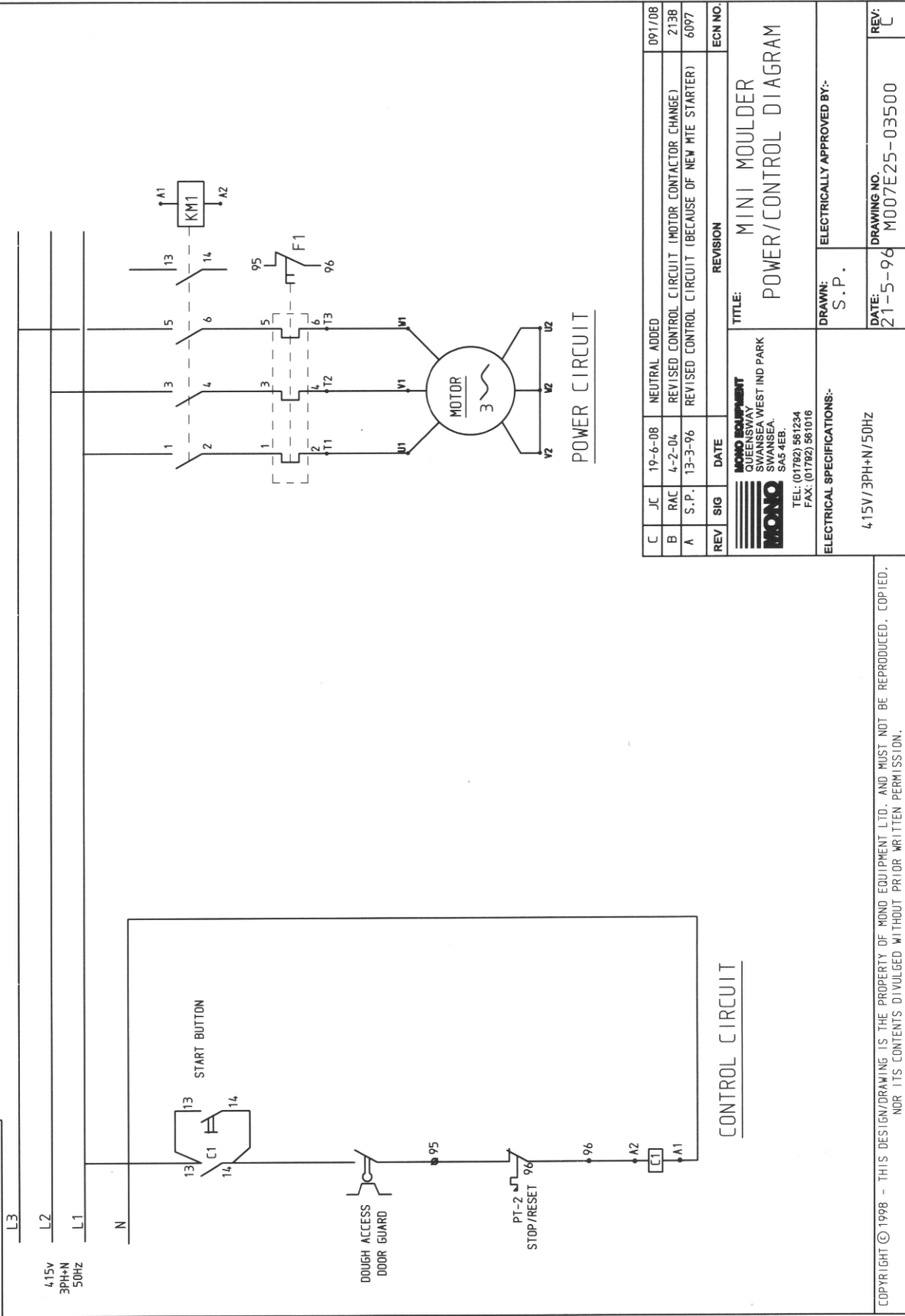
ITEM	PART No.	DESCRIPTION	QTY	ITEM	PART No.	DESCRIPTION	QTY
1	A900-22-012	Moulding Belt	1	17	M007-05D023	Sheeting Roll Adjusting Bar	1
2	M007-06D002	Curling Chain Rod	1	18	M007-05D025	Sheeting Roll Adjuster Screw	1
3	M007-06D003	Curling Flap Hinge	1	19	P700-04-017	Wing Nut	1
4	A900-08-021	Curling Chain	1	*20	M007-04D019	Removable Moulding Board	1
5	M007-05D015	Front Scraper Angle	1	21	M007-04D013	Spreader Board	1
6	M007-05D018	Front Scraper Plate	1	22	M007-04D009	Toggle	2
7	M007-05D020	Adjuster Screw	1	23	M007-04D011	Toggle Fixing Shaft	2
8	M007-05D022	Adjuster Stud	1	24	M007-03D024	Return Flap Back Plate	1
9	M007-02D022	Holed Spacer Bar	1	25	A900-22-014	Return Flap	1
10	M007-05D021	Rear Scraper Plate	1	26	P700-03-024	Side Cheeks	2
11	M007-05D010	Support Adjusting Bar	1	27	M007-03D023	Return Flap Bar	1
12	M007-05D012	Sheet Roll Gap Indicator	1	28	M007-03D027	Moulding Path Reducer, 6" – 5" (Special)	2
13	M007-03D026	Eccentric Reducers (Special)	4				
14	M007-05D014	Scraper Hook	2				
15	M007-05D016	Scraper Blade	1				
16	M007-05D016	Scraper Blade	1				
	or,						
16	M007-05D031	Scraper Blade for Dough Claw (special)	1				

* When ordering this part, please indicate width of board required.



15.0 ELECTRICAL DIAGRAMS

IF IN ANY DOUBT - ASK

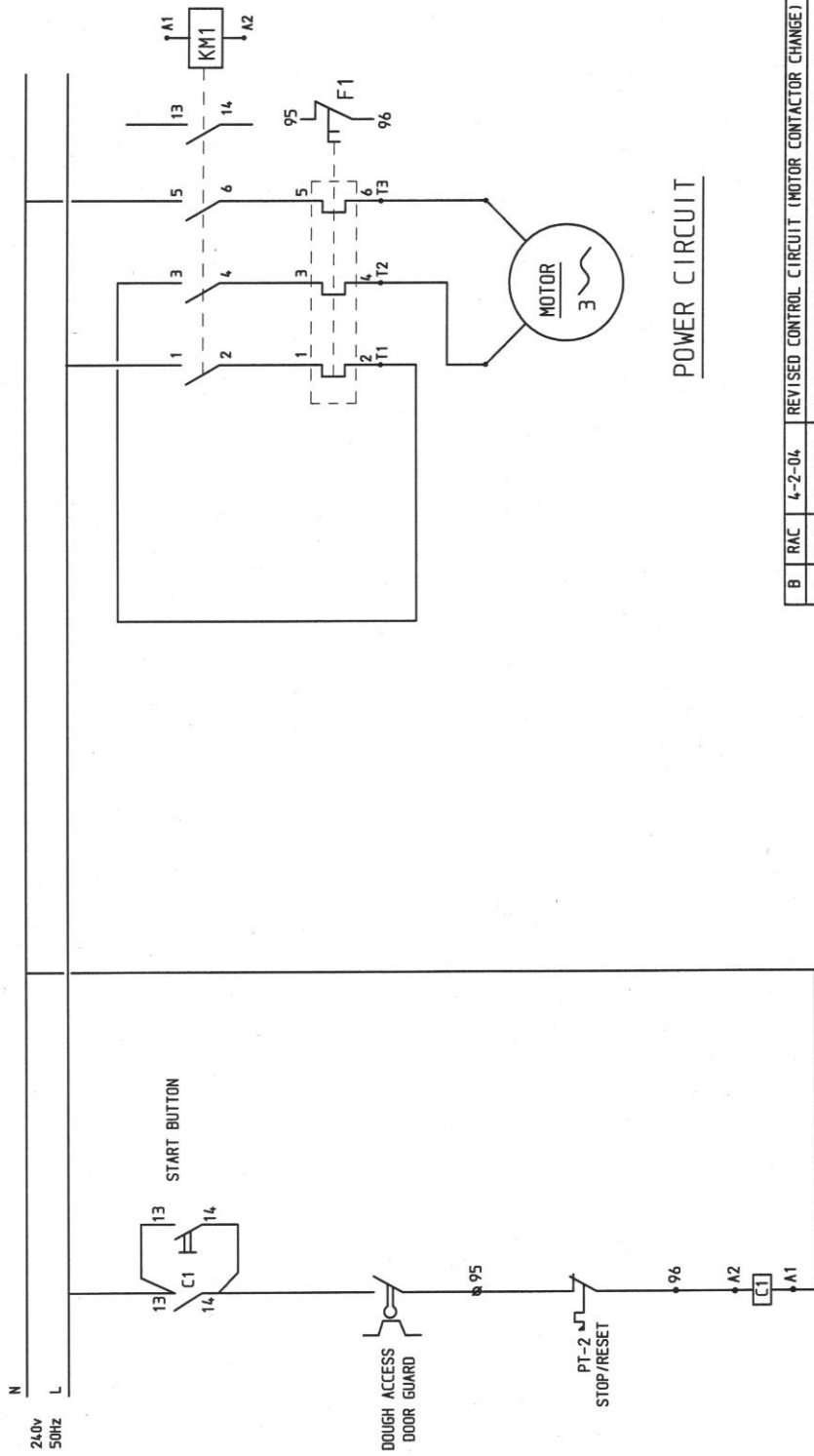


REV	SIG	DATE	REVISION	ECN NO.
C	JC	19-6-08	NEUTRAL ADDED	091/08
B	RAC	4-2-04	REVISED CONTROL CIRCUIT (MOTOR CONTACTOR CHANGE)	2138
A	S.P.	13-3-96	REVISED CONTROL CIRCUIT (BECAUSE OF NEW MTE STARTER)	6097

 MOND EQUIPMENT QUEENSWAY SWANSEA WEST IND PARK SWANSEA, SAS 4EB. TEL: (01792) 561234 FAX: (01792) 561016	TITLE: MINI MOULDER POWER/CONTROL DIAGRAM
ELECTRICAL SPECIFICATIONS:- 415V/3PH+N/50Hz	DRAWN: S.P. ELECTRICALLY APPROVED BY:-
DATE: 21-5-96	DRAWING NO. M007E25-03500
REV: C	

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IF IN ANY DOUBT - ASK



POWER CIRCUIT

CONTROL CIRCUIT

REV	SIG	DATE	REVISION	ECN NO.
B	RAC	4-2-04	REVISED CONTROL CIRCUIT (MOTOR CONTACTOR CHANGE)	2138
A	S.P.	13-3-96	REVISED CONTROL CIRCUIT (BECAUSE OF NEW MTE STARTER)	6097

TITLE: **MINI MOULDER**
POWER/CONTROL DIAGRAM
 (240V/1ph/50Hz)

DRAWN: TCI
 ELECTRICALLY APPROVED BY:-

MONO EQUIPMENT
 QUEENSWAY
 SWANSEA WEST IND PARK
 SWANSEA, SA5 4EB.
 TEL: (01792) 561234
 FAX: (01792) 561016
 Email: engineering@monoequip.com

ELECTRICAL SPECIFICATIONS:-

DATE:	7.02.95	DRAWING NO.	M007E25-03000
REV:	B		

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As it is our policy to improve our machines continuously, we reserve the right to change specifications without prior notice.

□ **DISPOSAL**

CARE SHOULD BE TAKEN WHEN THE MACHINE COMES TO THE END OF ITS WORKING LIFE. ALL PARTS SHOULD BE DISPOSED OF IN THE APPROPRIATE PLACE, EITHER BY RECYCLING OR OTHER MEANS OF DISPOSAL THAT COMPLIES WITH LOCAL REGULATIONS. (IN UK, ENVIRONMENTAL PROTECTION ACT 1990 APPLIES)