



Moldot Limited

10, Woodgate Business Park
Claggate Lane Bartley Green
Birmingham B32
England
Tel: 021-423 1223
Fax: 021-423 1102

PGP/SMS

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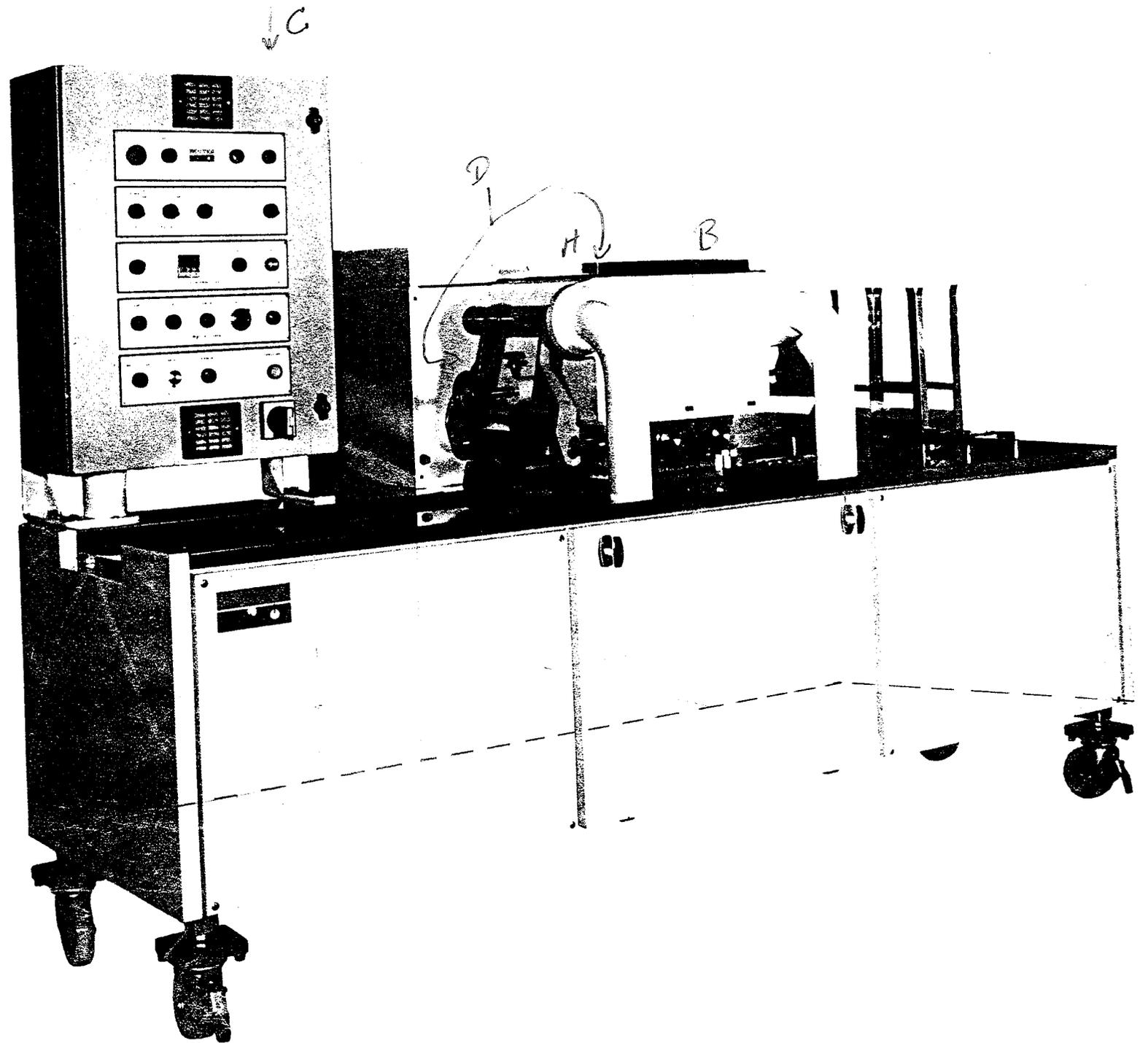
Please find enclosed the following:

1. A few spare parts with our compliments.
2. Instruction Manual
3. Electrical Diagram

Please note the following:

4. Fill water heating system up BEFORE turning machine ON.
5. Depositor is set to make 13.5 gram (approx) centre filled Pralines.
6. Depositor & Plates are for 7 x 3 moulds.
7. For 8 x 3 Moulds, change plates, re-connect pistons.
8. Remember as you look at the front of the machine - chocolate in the Right Hopper, Praline in the Left Hopper.
9. Head, Valves & Plates are marked (from the front (F)) CR (Cream) & CH (Chocolate).

Contd...





The number one name in
CHOCOLATE MOULDING SYSTEMS

Advantages of the Moldot Systems

COST EFFECTIVE

FLEXIBILITY

RELIABLE

PROVEN DESIGN

COMPACT

SELF CONTAINED

Our plants give you many years of service

PLUS

We build to good engineering practices

We provide reliable after sales service from our technical staff

Product Range



SOLID BARS

Moulded bars or milk and dark chocolate in various sizes.

CENTRE FILLED PRODUCTS

Moulded bars of individual assortment units with cream and other centres.

INCLUSIONS

Chocolate products with small pieces of nuts, mints etc.

MULTI CENTRE PRODUCTS

Filled moulded bars with a number of different centres in the same bar.

BOOK MOULDS

Filled goods with book moulded shapes.

'ONE SHOT' PRODUCTS

Many companies claim to be able to make One Shot products. We believe only two companies exist with any track record of this technology.

Let us convince you that we are one of them.

INDEX TO INSTRUCTION MANUAL FOR
DOT 100 SEMI-AUTOMATIC
MOULDING MACHINE

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INSTRUCTIONS FOR DOT 100 SEMI-AUTOMATIC
MOULDING MACHINE.

The DOT 100 Semi-Automatic Moulding machine represents a logical production system for the manufacture of various filled items. It is extremely simple and straightforward in concept and operation, but like any machine needs some care and attention paid to special points throughout its life in order to give its best service.

Before using the machine read the instruction manual carefully.

INSTALLATION

The DOT 100 Semi-Automatic Moulding machine has lockable swivel leveling wheels making it easily moveable. The machine does not require a special foundation, however, the floor should be a good level floor capable of taking the full weight of the machine. For preference it should be a tiled or concrete floor.

The machine should be leveled using a spirit level adjusting the lockable swivel leveling wheels accordingly. The lockable swivel leveling wheels are intended to be nominally extended 230mm, however, in the event of the floor being uneven, then it is recommended that the longest extension is 230mm and that the other feet are correspondingly shorter.

Having positioned the machine all wheels must be locked before electrical connection is made. Whilst a live electrical supply is fed to the machine the wheels must remain locked. The machine must not be moved whilst connected to an electrical and/or pneumatic supply.

ELECTRICAL CONNECTIONS

Position machine and securely lock all four wheels. Electrical connections are to be made by a competent electrician in accordance with the diagram and with wires being inserted in to the appropriately numbered terminals.

Where spare contactors are provided, these should be connected only after careful reference to the electrical diagram in order to avoid any damage being caused to the electrical components by incorrect addition. Before connecting the power supply to the electrical panel, ensure the voltage and frequency are correct.

Ensure correct voltage selection on the primary side of the transformer where applicable.

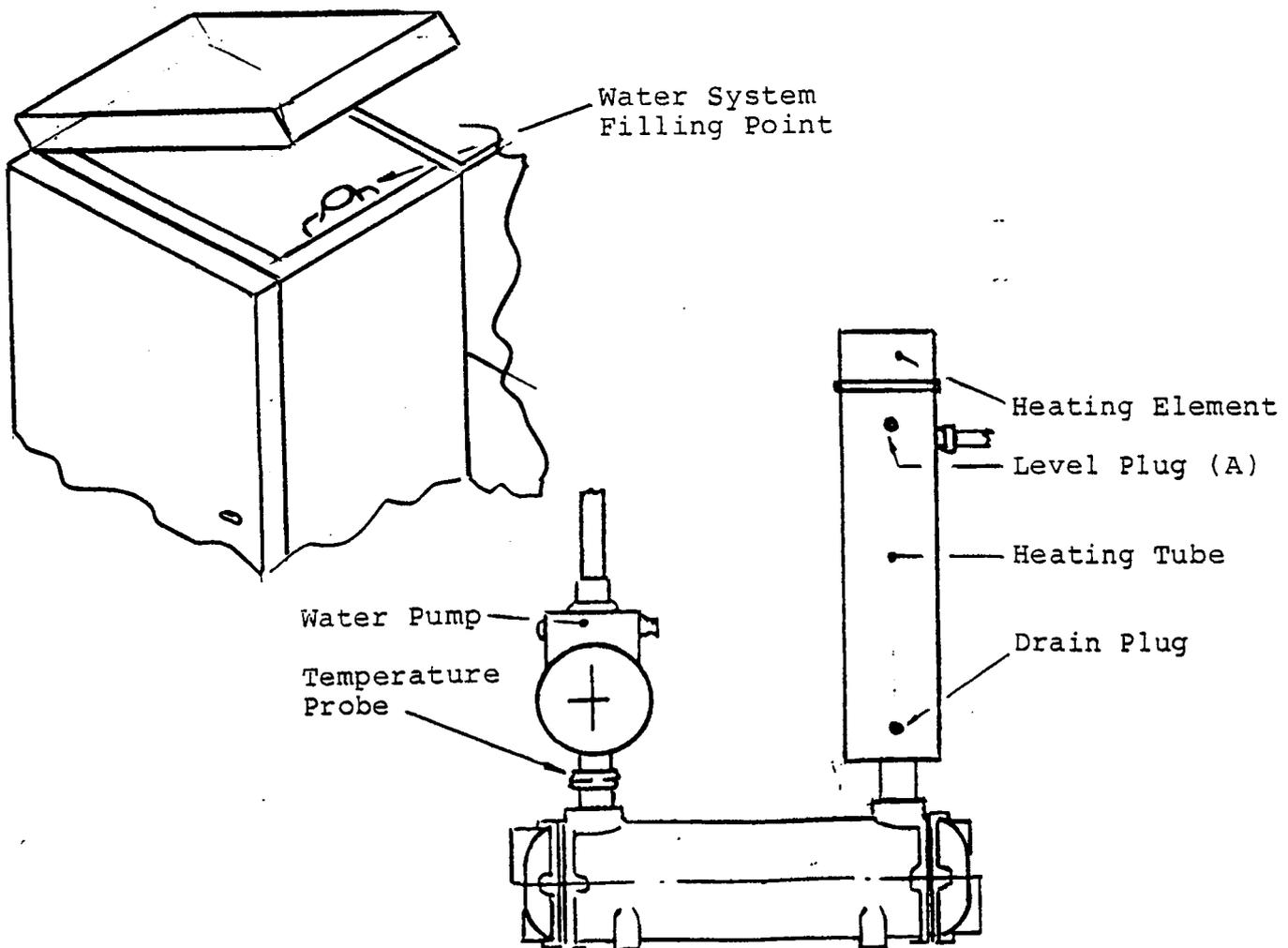
The machine is mechanically run at our factory off a 415volts 3 phase 50 hz supply. Where lower voltages are used the main inverter (IMO JAGUAR CD 75) may require the maximum continuous current uprating. Refer to Jaguar CD (Section 3) manual provided. When running parameters have been determined they should be recorded for easy reference in the user set up information in the back of the Jaguar CD book.

WATER SUPPLY

The DOT 100 depositor has an on board water supply to maintain the depositor body at the correct temperature. This should initially be filled with soft water.

When filling an empty system the following procedure must be followed:

1. Turn off electricity supply to the machine.
2. Ensure all water connections are adequately tight.
3. Take out level plug (A) from heating tube. Pour water into system, filling system up to level A. Replace level plug A to give a water tight seal. Fill system up with water.
4. It is essential that the system filling point is not closed or obstructed in any way.



5. Turn on the depositor heating system.
6. The pump running light should illuminate.
7. Press the return key () on the temperature indicating instrument (Ref page 5) to illuminate SP (Set Point) on the present data indicator.
8. Press the UP key () to raise the displayed set temperature or press the Down key () to lower the displayed temperature until the desired temperature is displayed in the main display window.
9. Press the return key until neither present data indicator is illuminated. The water heater should turn ON or OFF as the case may be.
When the heater is on the 'Heater On' light will illuminate.
When the heater is off the 'Heater On' light will not illuminate.
N.B. When the depositor heating system is switched on the water pump should at all times be running whether the heater is on or off.
10. The depositor will take a short time to reach the set temperature. The actual temperature now being displayed on the main display window of the temperature indicating window.

TEMPERATURE INDICATING INSTRUMENT

Deviation indicators.
△ lights when the present temperature is higher than the set temperature.
▽ lights when the present temperature is lower than the set temperature.

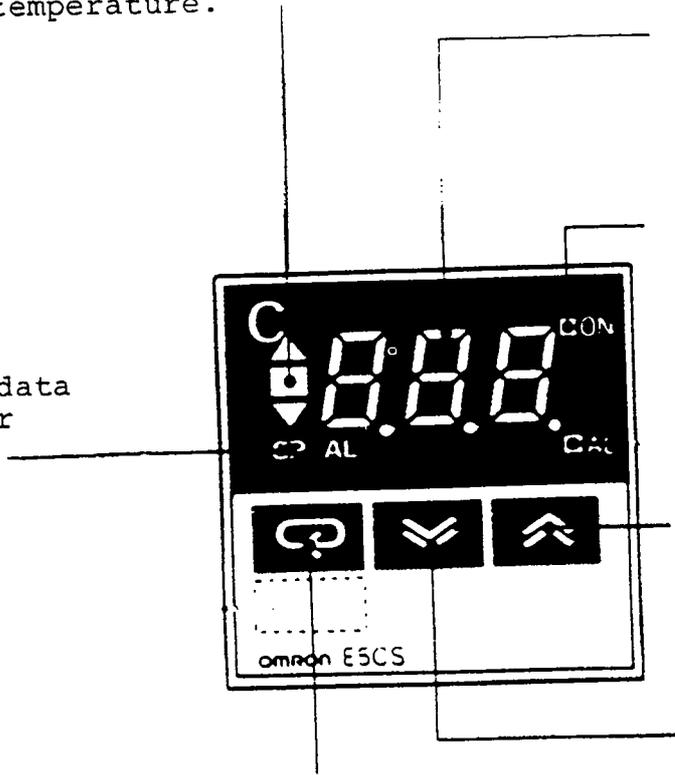
Main display
Sequentially displays the present set temperature or temperature each time the return (↻) key is pressed.

Control output indicator lights while the control output is energised.

Present data indicator

Up key when pressed increases the set temperature.

Down key when pressed decreases the set temperature.



Return key: Each time pressed, changes the value displayed on the main display.

OPERATION SUMMARY

Prior to continuous running of machine all necessary settings ie weight centre, percentage centre position must be established and set.

1. Turn main isolater on (Ref Page 18)
2. Turn depositor heating system on. Set for required temperature, allow adequate time for depositor to reach required temperature.
3. Ensure all valve turning switches are off (Ref Page 18)
4. Fill right hand depositor hopper with coating (if chocolate is used, ie, cocoa butter fat base, then it must be properly tempered.)
5. Fill left hand depositor hopper with centre filling.
6. Start machine (Ref Page 18)
7. Turn on valve turning master control (Ref Page 18).
8. Turn on chocolate valve turning control allowing plates to become fully charged (Ref Page 18).
9. Turn on centre filling valve turning control allowing plates to become fully charged (Ref Page 18)
10. Turn valve turning master control off. (Deposit will stop)
11. Stop machine running and fully charge mould feed magazine.
12. Turn on shaker and lift table control.
13. Turn on machine.
14. Moulds will now feed through machine.
15. As first mould feeds under the depositor turn valve turning master switch on.
16. Moulds will now continuously feed through machine and fill with product.
17. Keep mould magazine topped up as found necessary for continuous operation of machine.

DOT 100 DEPOSITOR

The DOT 100 depositor is two depositors closely coupled together so that their outputs may be precisely controlled.

One depositor is for chocolate and has appropriate cams and valve turning arrangement. The other is for cream, it has a special constant 'suck back' feature and its own independent valve turning arrangement.

The outputs from these depositors are combined in concentric nozzles to produce various filled chocolate pieces and bars normally produced by the classic system. Adjustment of phasing between the cream and the chocolate is provided.

The depositor is run in the workshop prior to delivery, and the machine is delivered with adjustments to produce the clients items. Naturally extended running and experience with the machine will lead to some improvements in the settings initially prepared. Provision is made to return to the original settings in the event that they are lost for some reason. All cams have a datum position marked clearly. We would advise that the phase adjustment setting is noted with the rollers on the datum setting, so that they can quickly be put back to their original places in the event that the drive chain is removed.

CREAM DEPOSITOR LUBRICATION

When running fondant or similar cream it will be necessary to periodically lubricate the pistons with water or some similar lubricant.

DOT 100 ADJUSTMENT

The timing of the depositor should be arranged so that it deposits in the stationary part of its cycle. Cream and chocolate weights may be adjusted individually but it should be noted that adjustments in the weights does adjust the position of the centre in the chocolate deposit, and therefore, a compensating phase adjustment may be necessary. A simple adjustment system is provided so that different shaped products can be made.

When changing from pralines to bars, it is normally necessary to adjust not only the weight but the phase adjuster, when changing from one praline to another or one bar to another, then phase adjustment is not normally needed.

DOT 100 DEPOSITOR CLEANING

Care must be taken when cleaning, trying and assembling the complete system. Edges of the plates must not be damaged and clamping bolts must be tightened in sequence in order to prevent distortion. SEE DIAGRAM 'A'.

The depositor should be cleaned when changing from one cream to another, it may simply be washed through on the cream side using hot water with a little detergent and rinsed with clean water.

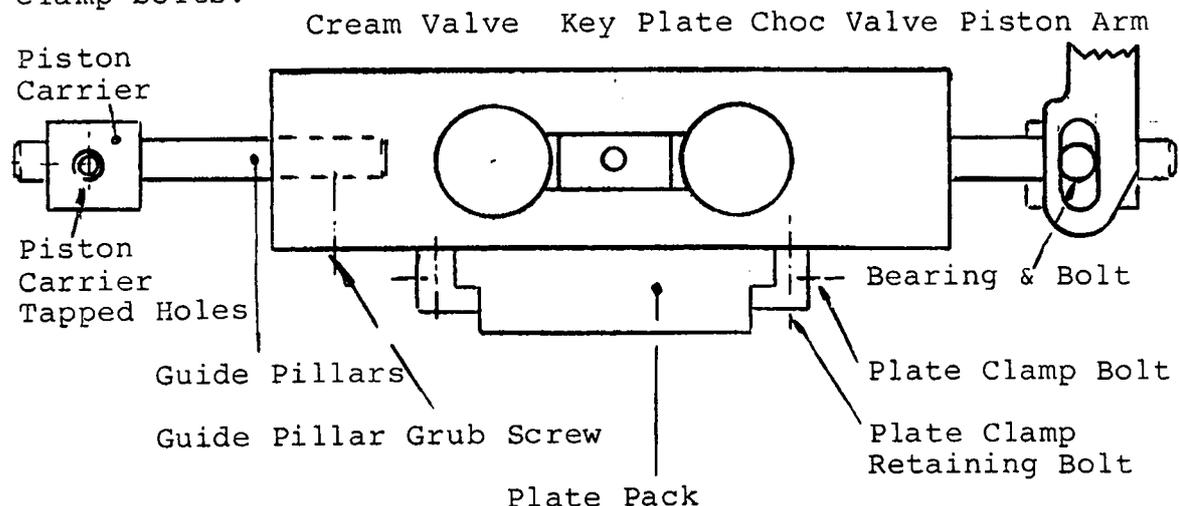
When changing from fondant to a fat based cream, great care should be taken to ensure the lubrication is disconnected and is completely dry. Failure to do this will result in water in the fat based cream and siezing of the pistons with possible damage to equipment.

When assembling the pistons check that each individual piston can slide freely in the bore and that when assembled in the piston carrier that these can be slid freely as an assembly.

Insert guide pillars through piston carrier into head retaining using grub screws provided.

Insert bearings into piston arms, line piston carrier tapped holes with bearings, push in and secure retaining bolts.

Ensure the plate clamp retaining bolts are securely tightened and push the plates fully home before tightening the plate clamp bolts.



Valves may be removed by releasing the key plate screw, turning the key plate through 90 degrees removing the valves from the front of the machine. When valves are removed, check that the 'O'ring seals are not damaged. If damaged remove and replace.

RUNNING THE PLANT

Before running the plant the following points should be noted:

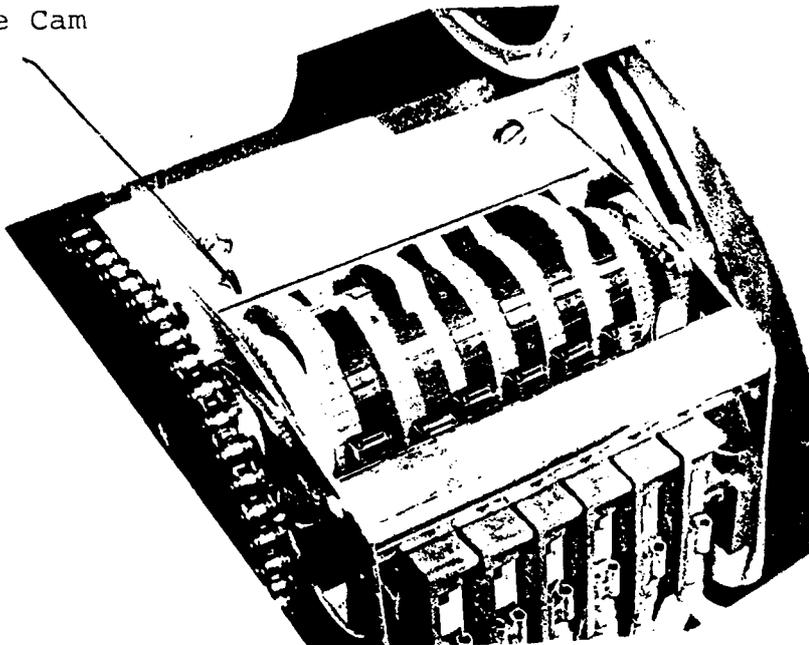
1. The ambient temperature at the depositor end should be 25 deg - 27 deg when operating with chocolate.
2. Chocolate must be consistent in condition, an automatic tempering machine is normally necessary to achieve this.
3. Cream supply should be consistent in viscosity and temperature; when running with chocolate products it should not exceed 35 deg C.
4. Moulds must be cleaned carefully and dried.

LIFT TABLE

a) TIMING

The table is lifted pneumatically, the timing may be adjusted by rotating CAM 'A'.

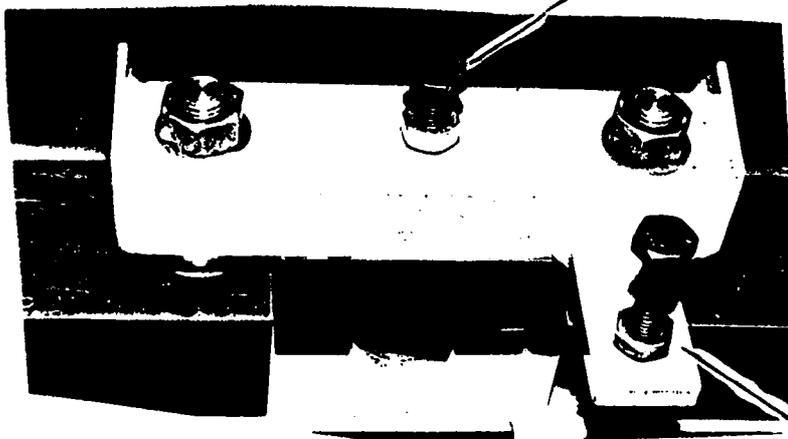
Lift Table Cam



b) LIFT

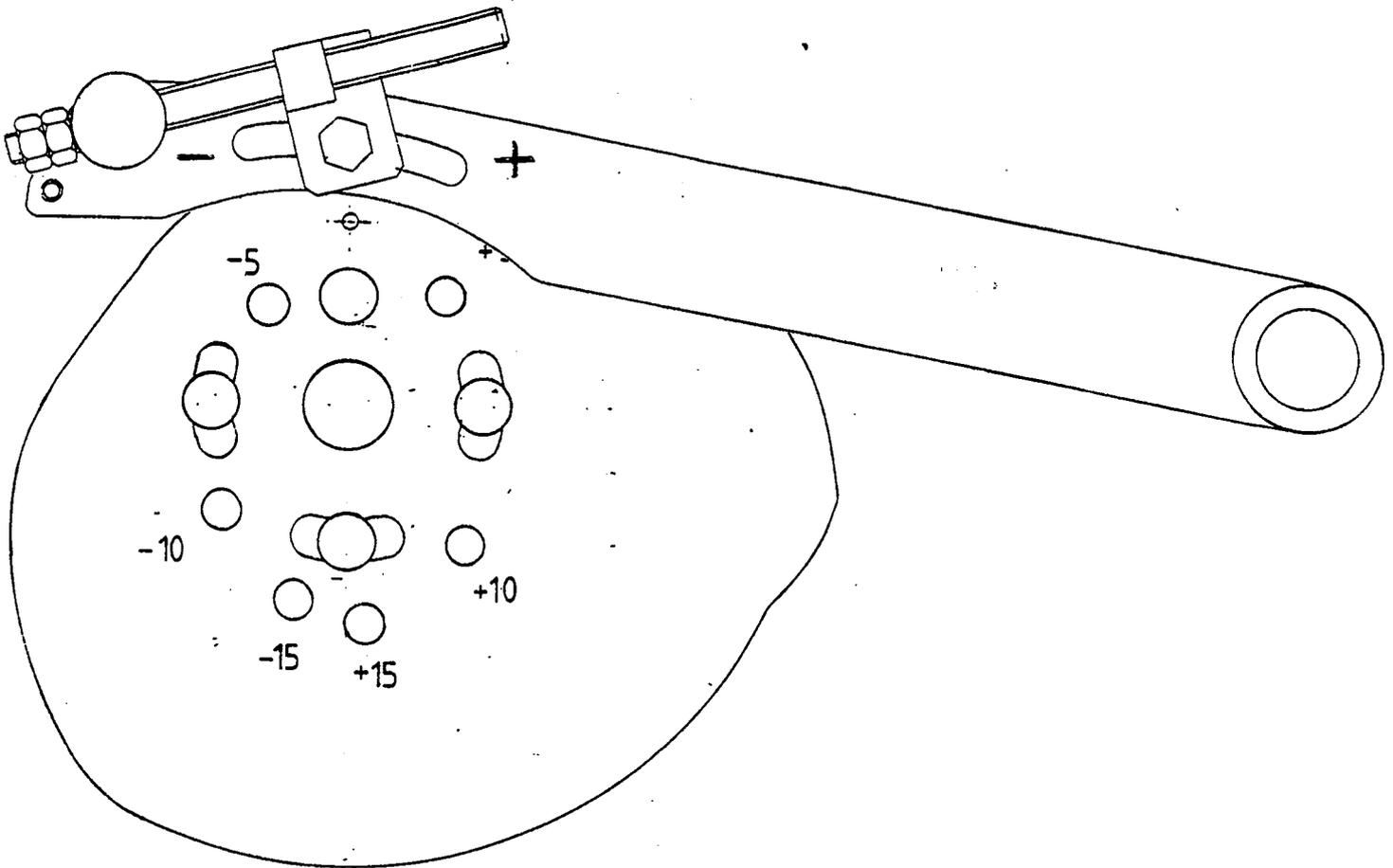
The table height may be adjusted by using screw shown. NB After adjustment lock up nut and replace safety cover.

Lift table adjust screw



DO NOT
Adjust
this screw

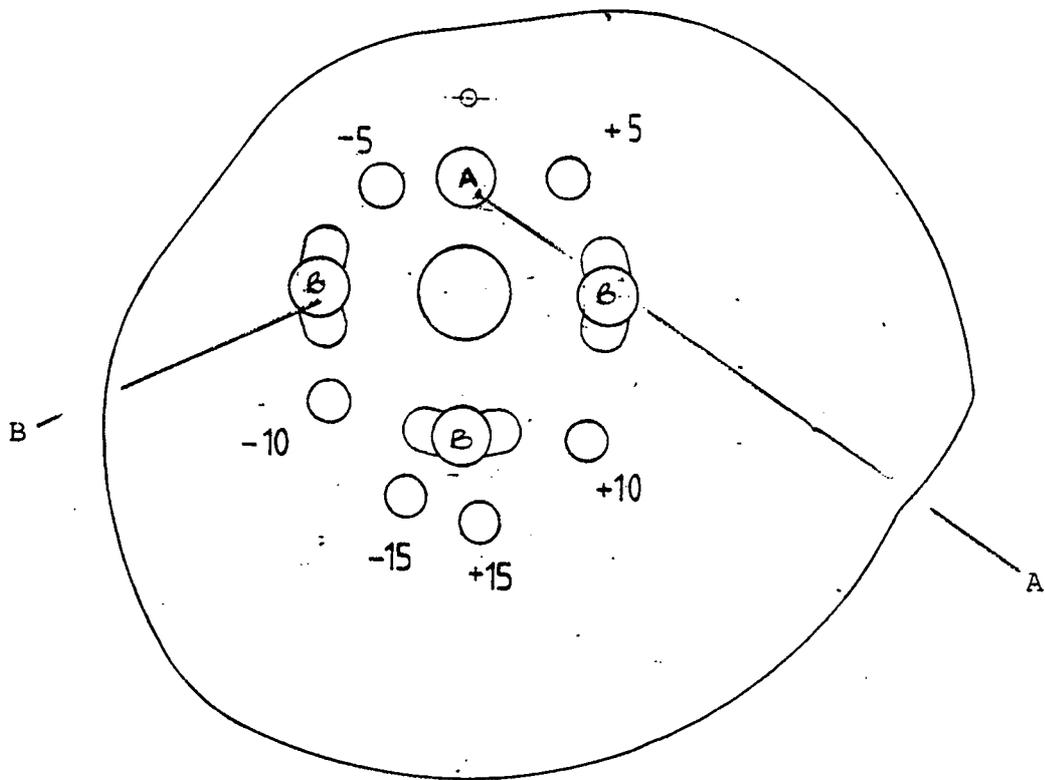
CENTRE PERCENTAGE ADJUSTMENT



The centre percentage adjustment allows the adjustment rate of cream deposit relative to that of chocolate and thus affects the thickness of the side walls.

As a guide in the central position on a normal 10 grm piece the centre percentage would be 45% plus or minus 5% (dependant on weight settings) with roller fully adjusted minus \frown centre percentage is 40% plus or minus 5% with roller fully adjusted plus \smile centre percentage is 50% plus or minus 5%.

DATUM SETTINGS



THINNER
THICKER



+

THICKER
THINNER



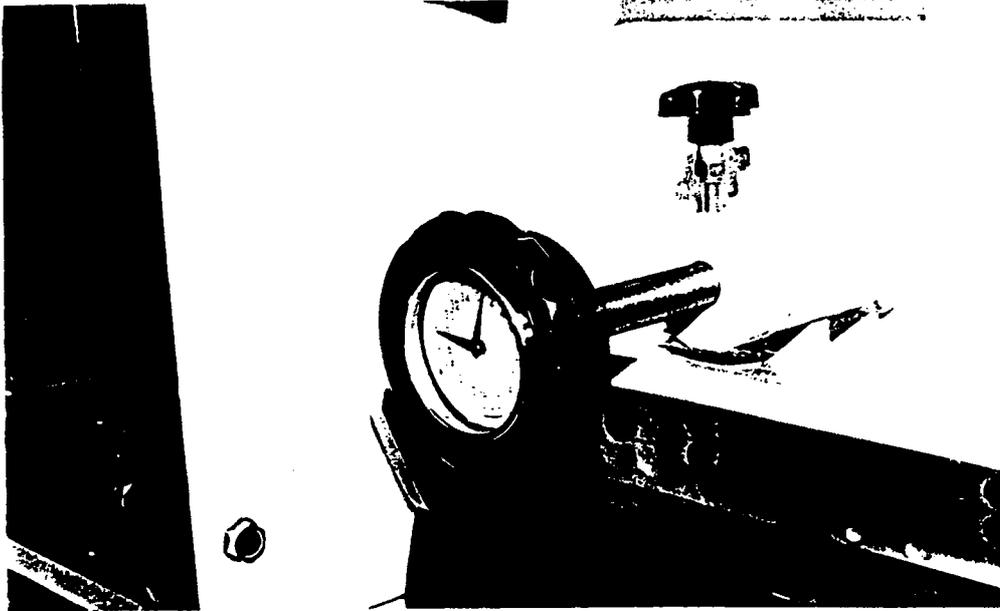
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TO ADJUST

1. Release screws 'B'
2. Remove screw 'A'
3. Rotate cam to new position
4. Replace screw 'A'
5. Lock up screws 'B'

WEIGHT ADJUSTMENT

WEIGHT
ADJUSTER
LOCKING
KNOB



WEIGHT
ADJUSTER

CREAM



REDUCES CREAM WEIGHT
THICKENS SHELL



INCREASES CREAM WEIGHT
THINS SHELL

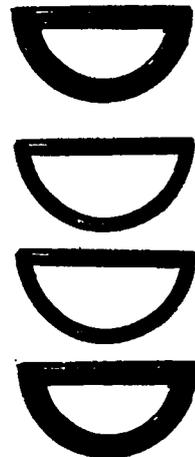
CHOCOLATE



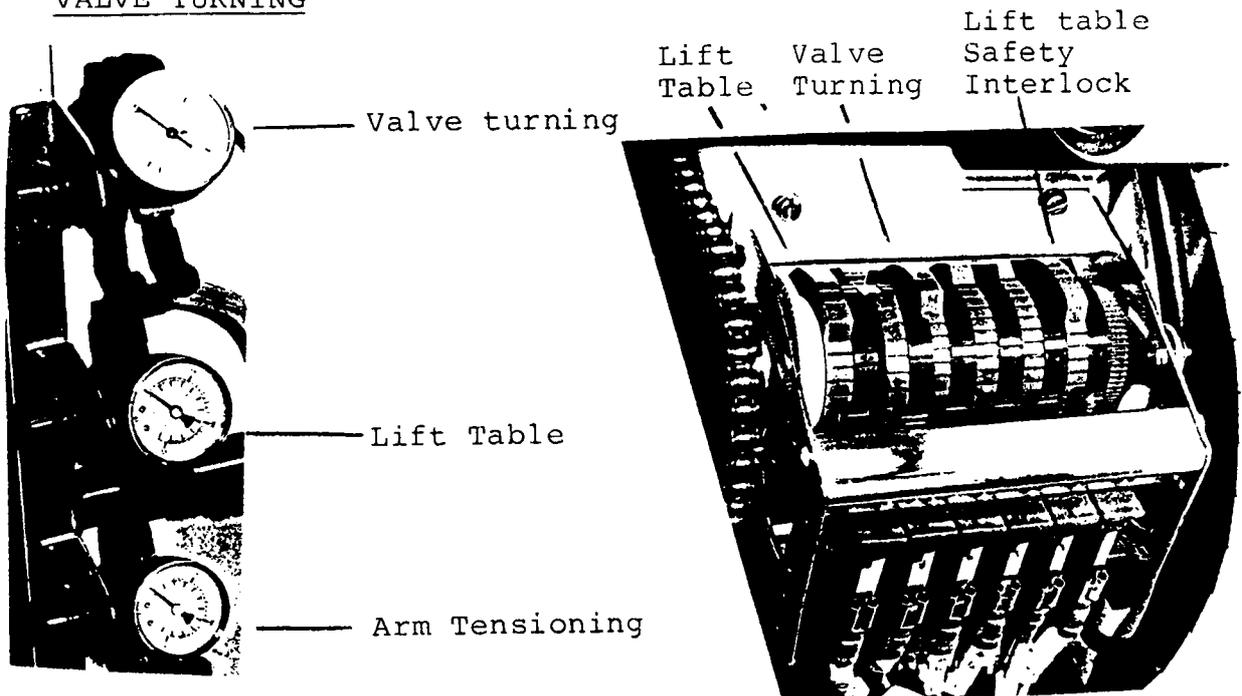
REDUCES CHOC WEIGHT
THINS SHELL



INCREASES CHOC WEIGHT
THICKENS SHELL



VALVE TURNING



PRESSURE REGULATOR

Valve turning is pneumatically operated.

By operating the valve turn switches on electrical panel the valves can be stopped and depositing will stop. With the valve master switch turned on the valves may be turned off or on independently as required.

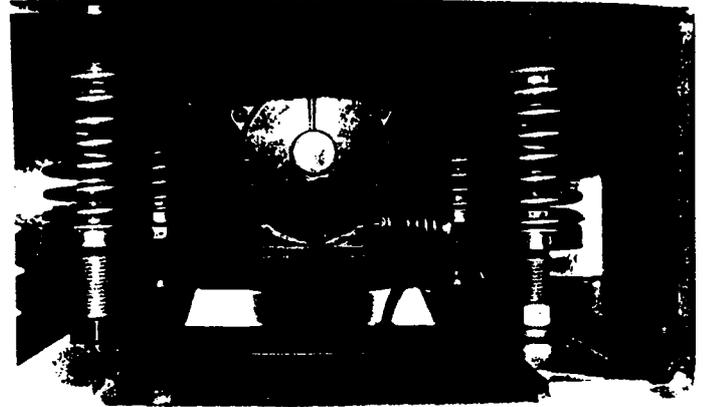
Adjustment

- a) Timing for the valves is set via cam 'B'
- b) Pressure adjust the pressure regulator so that the valves turn easily. The pressure will depend on the nature of the product.

SHAKER



SPEED CONTROL



END COVER

FREQUENCY

Shake frequency may be adjusted at the electrical panel.

AMPLITUDE

Shaker amplitude may be adjusted as follows:

- a) Remove end covers
- b) Release eccentric weight locking screws
- c) Adjust as required and relock.

NOTE It is essential that both ends are adjusted exactly in line. Failure to do so will cause electrical and mechanical damage.

TIGHTENING SEQUENCE

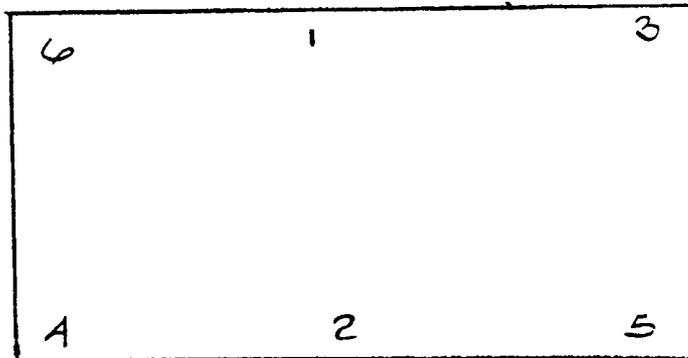


DIAGRAM 'A'

Note

Ensure 'O' ring is in good condition.

PERIODIC MAINTENANCE

In order to keep the plant at maximum efficiency, the following maintenance is recommended.

DAILY

Check depositor water level.

WEEKLY

Depositor bearings.

All rose joints fitted with grease nipples.

Cam followers.

Check gearbox for leaks.

SIX MONTHLY

Shaker motor bearings to be repacked.

TWELVE MONTHLY

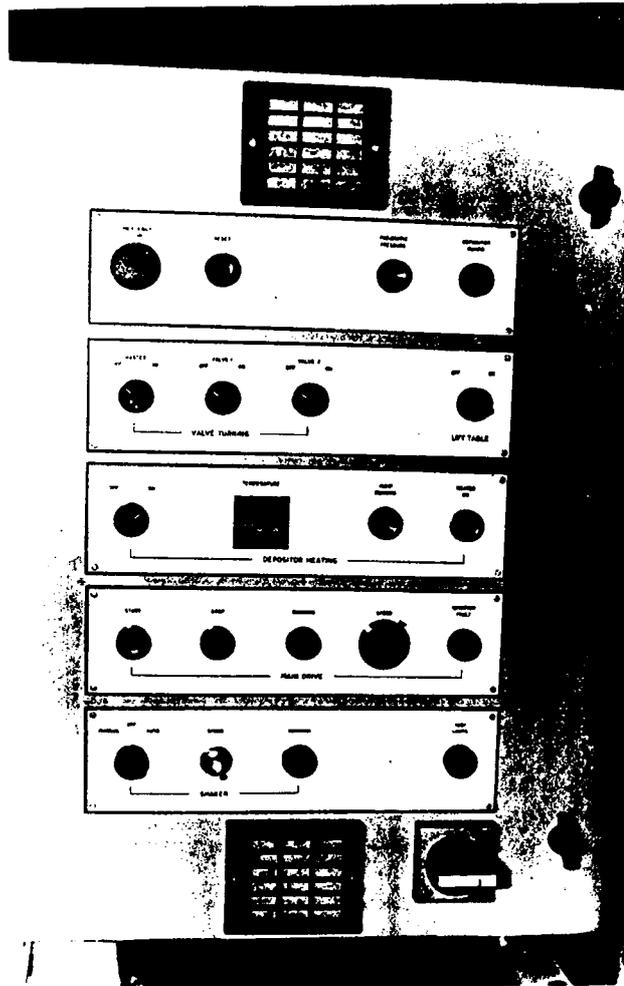
Chains should be maintained in a clean condition and lightly oiled. If however, the chains become very dirty and dry this period should be reduced.

All other bearings are sealed for life to reduce maintenance.

ELECTRICAL CONTROL PANEL

Reset Button
Emergency Stop
Valve Turning
Master ON/OFF
Valve 1 ON/OFF
Valve 2 ON/OFF
Depositor Heating
System ON/OFF
Depositor Temperature
Controller
Main Drive Start/Stop
Main Drive Running Light

Shaker Manual/Off/Auto
Shaker Speed Control
Shaker Running Light



Pneumatic
Pressure
Depositor
Guard
Lift Table

Pump
Running
Light
Heater ON
Light
Speed
Control
Invertor
Fault
Test Lamp
Button

Refer to page 19 for description.

ELECTRICAL CONTROL PANEL

(Refer to page 18 for diagram)

Entrance into the electrical cabinet, should only be made by a competent electrical person.

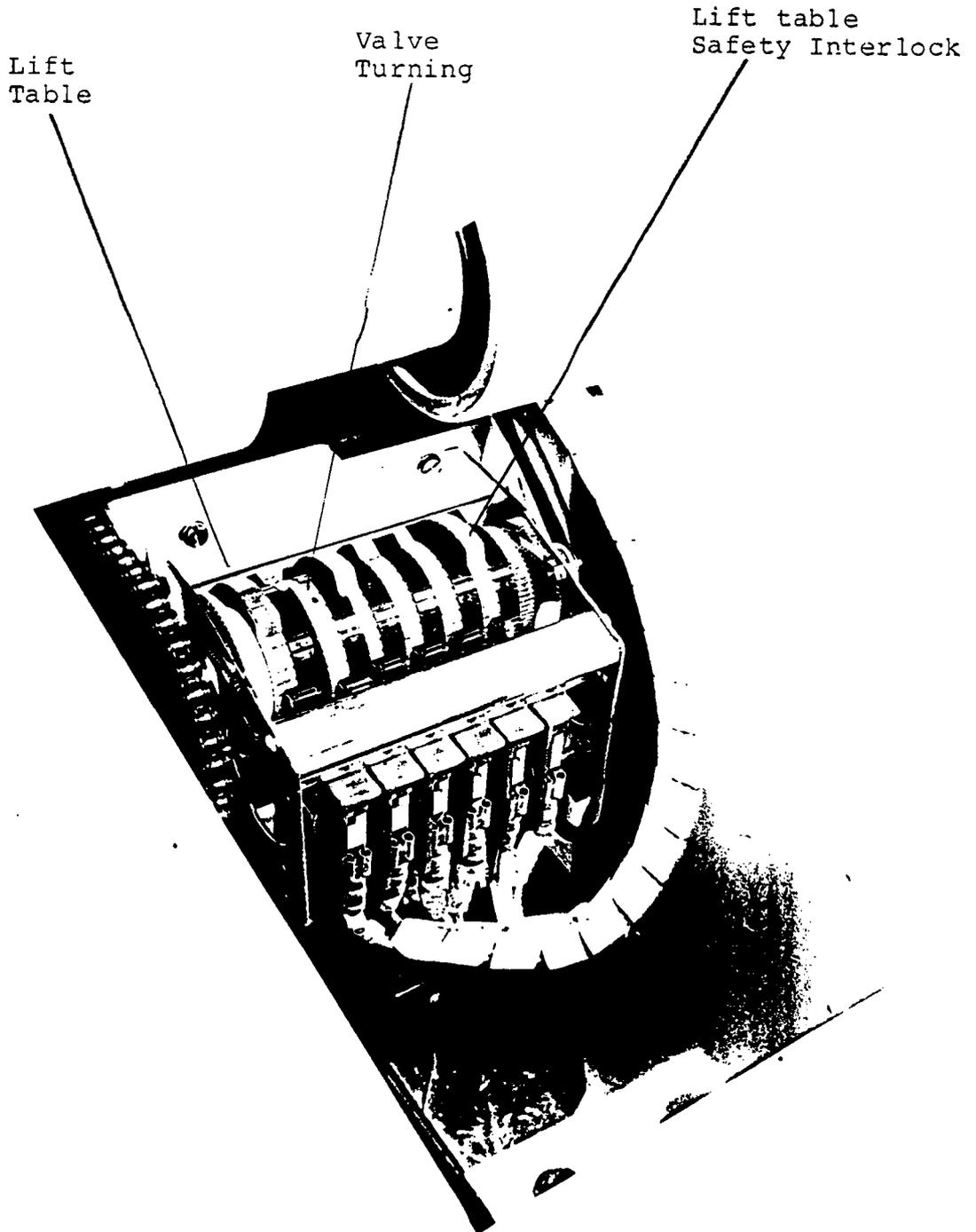
1. Emergency Stop. Press to stop machine in case of emergency. Resolve problem. Twist clockwise to release. Press Reset Button to reset control circuit.
2. Reset Button. Press to set or reset control circuit.
3. Pneumatic Pressure Switch Indicator. If machine will not run and this light is on, then pneumatic pressure is too low.
4. Depositor Guard Indicator. If machine will not run and this light is on, then the depositor guard is removed. Depositor guard must be replaced and reset button depressed before the machine will run.
5. Valve Turning.
Master ON/OFF - Enables Valve 1 & Valve 2 ON/OFF switches.
Valve 1 " " - When Master Switch is ON turns ON or OFF centre material deposit.
Valve 2 " " - When Master Switch is ON turns ON or OFF the coating (shell & back) material.
6. Lift Table OFF/ON. When switched ON enables the Lift table. When switched OFF disengages the lift table.
7. Depositor Heating System. Depositor system ON/OFF switch switches heating system ON & OFF.
Depositor Temperature Controller (See page) Controls heating system.
Pump run light - illuminates when pump is running.
Heater ON light - Illuminates when heater is ON.

8. Main Drive. - Start button starts machine running.
 Stop button stops machine running.
 Running light illuminates when machine runs.
 Speed control increases and decreases machine speed.
 Invertor fault illuminates for invertor fault - refer to IMO manual for diagnostic analysis.

9. Shaker. - MANUAL - shaker runs when machine is stationary.
 OFF - shaker does not run.
 AUTO - shaker runs when machine is running.
 SPEED CONTROL - alters the frequency of shaker.
 RUNNING LIGHT - illuminates when shaker is running.

10. Test Lamp Button -When depressed all lamps will illuminate, which gives a visual indication that they are working.

CAM BANK FUNCTIONS



APPROXIMATE WEIGHT ADJUSTMENTS



The information given is approximate as the specific gravity of the material deposited affects the final weight.

RIGHT HOPPER (CHOCOLATE)

Black Pointer.

One Graduation = 0.44 gm

Red Pointer.

One Revolution = 0.44 gm

One Graduation = 0.012 gm

LEFT HOPPER (CENTRE FILLING)

Black Pointer.

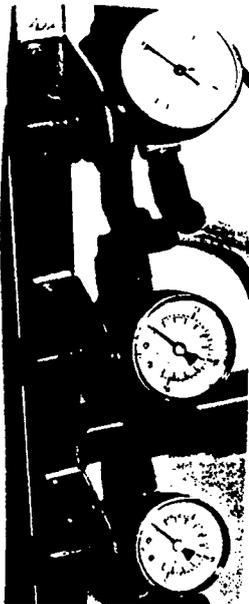
One Graduation = 0.47 gm

Red Pointer.

One Revolution = 0.47 gm

One Graduation = 0.013 gm

RECOMMENDED PRESSURE SETTING



Valve Turning 3 Bar

Lift Table 4 Bar

Arm Tensioning 1.5 Bar

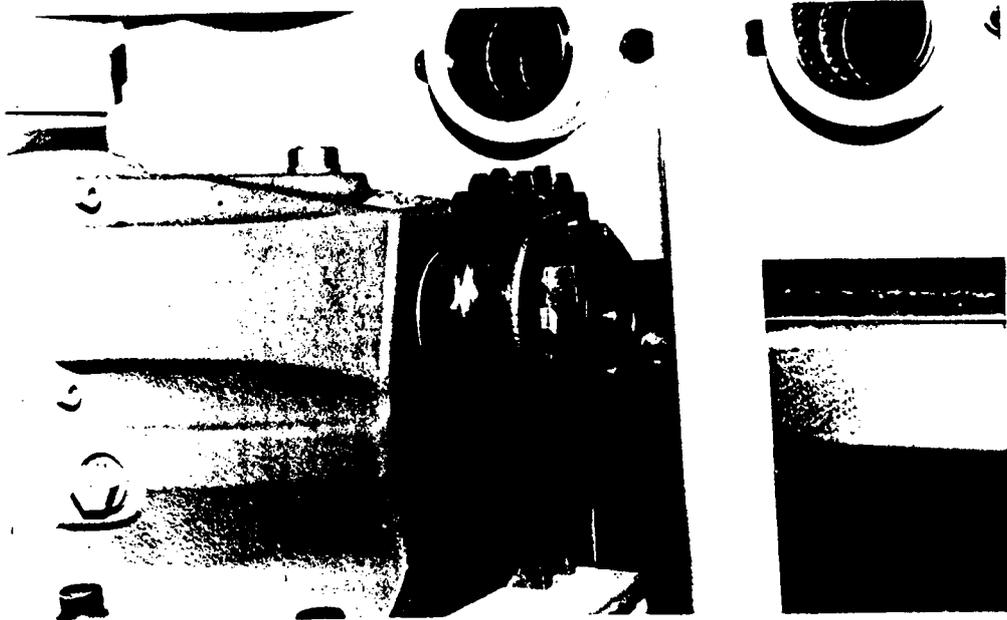
MOULD POSITION

To adjust mould position loosen nut and twist arm. When desired position is reached lock nut. This adjustment must only be made with the machine stationary.



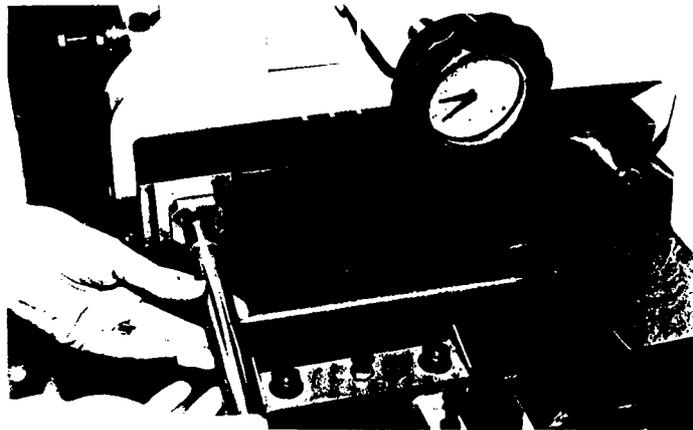
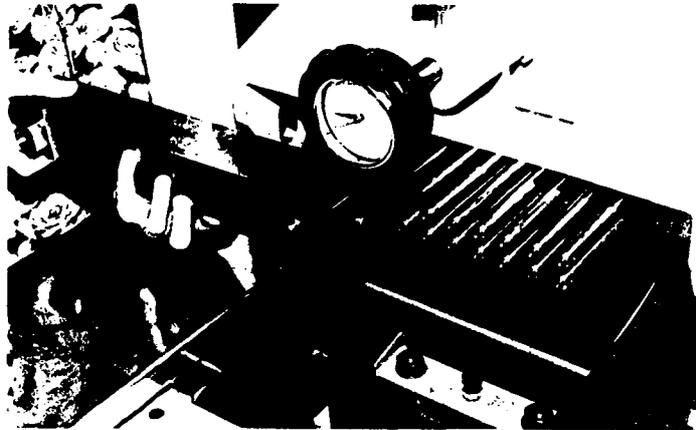
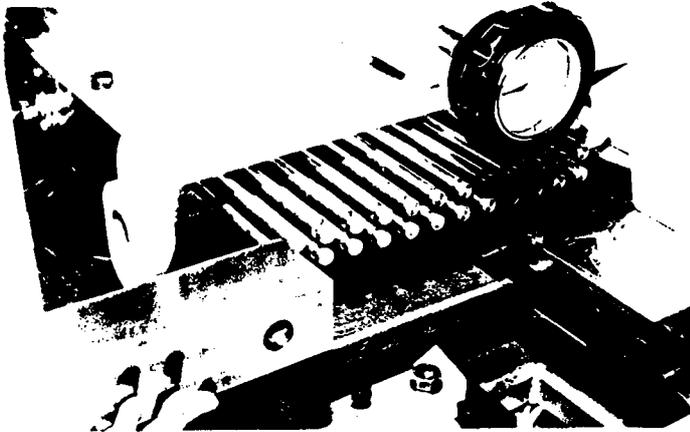
MACHINE PROTECTION

Current limit may be set on the Imo Jaguar inverter, reference Imo Jaguar Manual.



The large nut on the torque limiter must be tightened (whilst machine is not running) such that it only just does not slip when machine runs. This will give protection in the event of a jam.

PISTON CARRIER ASSEMBLY



1. Insert Pistons Flush.
2. Slide On Piston Carrier.
3. Insert Fixed Bush Pillar Fully & Lock Grub Screw.
4. Insert Floating Bush Pillar Fully & Lock Grub Screw.
5. Insert Rollers & Screwed Axles - Lock Securely.



MOLDOT

The Company

Moldot is a manufacturer of moulding lines for the Chocolate industry.

Moldot is a United Kingdom based company having its main Administrative offices and

manufacturing facilities based in Birmingham. People at Moldot have been in the engineering of complete Chocolate and Confectionery manufacturing plants for over 20 years.

Moldot's chocolate moulding lines



SELF CONTAINED

Moldot machines are extremely versatile. They are supplied complete with fridge set, fans, electrical panel, internal wiring and on board water heating system.

OUR RANGE

The smallest machine suits laboratory production scales and the largest machine produces up to 3,000 Kg/hr of product for major users.

DESIGN FEATURES

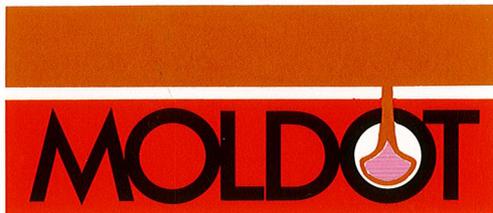
The machines are designed with cost and ease of installation in

mind. Cleaning, hygiene and maintenance implications have been well thought out. The frame is made out of rectangular box sections. Any holes into these are sleeved. Electrical gear and standard parts are from well known international suppliers to ease availability of replacement parts.

The machine has adjustable levelling feet and no expensive foundation is required.

WHY MOLDOT

Moldot plants are cost effective, flexible, require low labour running costs and are simple to operate.



MOULDING PLANT MANUFACTURERS

For further details, please write to:-
Sales Department,

MOLDOT LIMITED
10 Woodgate Business Park,
Clappgate Lane,
Bartley Green,
Birmingham, B32
England.
Tel: 021-423 1223. Fax: 021-423 1102.

