

Enter <b>Serial No.</b>	here

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



# "OMEGA PLUS" INCLUDING WIRECUT VERSION DEPOSITOR (400, 450,)

**OPERATING AND MAINTENANCE MANUAL** 

The use of templates and/or accessories not produced or supplied by MONO Equipment will invalidate the machine's warranty



### **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	CAD Vhous				
G.A.Williams – Quality Manager					
Date					
Machine FG Code.	Machine Serial No.				

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



FOR SAFE WORKING, PAY SPECIAL ATTENTION TO ITEMS MARKED



The use of templates and/or accessories not produced or supplied by MONO Equipment will invalidate the machine's warranty

CONTENTS —

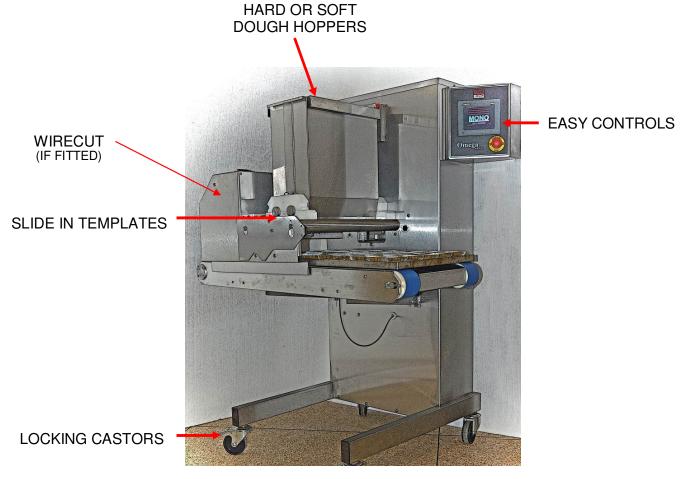
Omega PLUS

-	INTRODUCTION			
-	DIMENSIONS			
-	SPECIFICATIONS			
-	SAFETY 🛆			
-	INSTALLATION			
-	ISOLATION			
-	CLEANING INSTRUCTIONS			
-	OPERATING CONDITIONS			
-	PREPARING FOR OPERATION			
	9A – FITTING THE HOPPER			
	9B – FITTING A TEMPLATE			
-	OPERATING INSTRUCTIONS			
- SEI	LECT PRODUCT TYPE			
- SEI	LECT SAVED NAME OF PRODUCT TYPE			
- CO	NFIRM SETUP			
- OP	ERATOR SCREEN			
– EDI	T SCREEN			
A - TRA	Y SETUP			
- CO	PY			
– DEI	LETE			
- PAS	SSWORDS			
9 – ENGINEERING SETTINGS				
– FAU	JLT INFORMATION SCREENS			
-	MAINTENANCE CHECK AND MAINTENANCE SCHEDULE			
-	SPARES AND SERVICE			
	- SEI - CO - OP - EDI - TRA - CO - DEI - PAS - ENO			

13.0 - ELECTRICAL INFORMATION

### 1.0 INTRODUCTION

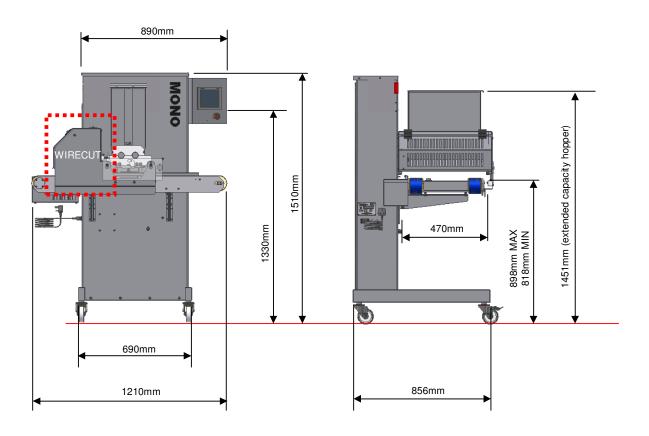
- The innovative "five axis deposit" design of MONO's "Omega PLUS" and
  "Omega PLUS with wirecut" depositor allows it to recreate most of the hand
  movements of the Master confectioner. This makes the "Omega PLUS" capable
  of exceptional accuracy of product weight, size and shape.
- Maintenance is kept to a minimum and the smooth body design makes daily cleaning quick and easy.
- Easy to use computer software gives access to 550 programs, which are stored in the memory and easily recalled for use or modification.
   Control is via a colour touch screen with graphically represented products, already installed, that can be created or edited to the required product.
- It is available with soft and hard dough hoppers. There is also a large selection of templates and nozzles as well as various shape biscuit dies to use with the wirecut version.



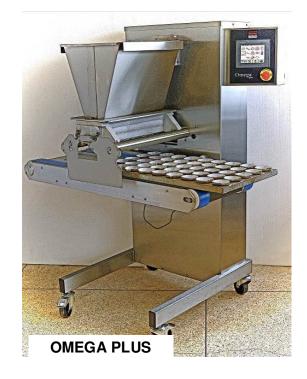
As it is our policy to improve our machines continuously, we reserve the right to change specifications without prior notice

MODELS ARE AVAILABLE WITH OR WITHOUT WIRECUT OPTION

### MODELS ARE AVAILABLE WITH OR WITHOUT WIRECUT OPTION







### 3.0 SPECIFICATIONS

Omega PLUS

	SOFT DOUGH		<u>HARD DOUGH</u>		
MODEL (Nom. hopper width (mm))	400	450	400	450	
Weight (with hopper fitted) (kg):	196	210	216	235	
Standard hopper Capacity (litre):	20	22.5	21	24	
Extended hopper Capacity (litre):	36	41	31	35	

**Power:** Single phase, 13A max load. Suitable for 200v, 220v,

230v, and 240v, 50-60 Hz supply.

MAX RATING 2.5kW single phase fused at 13A

Cycles per minute = Up to 35
Min distance between trays = 50mm
Max vertical travel = 80mm
Max program storage = 650

Number of languages = 18 (additional in future)

Noise level = Less than 85dB

Electronics = All microprocessor controlled

### **NOTE:**

The minimum deposit that can be made depends on several factors - recipe, mixing method, template size, nozzle size and deposit speed.

As a guide the following is the minimum that should be attempted:

Macaroons	6g.
Meringues	3g.
Choux Paste	5g.
Viennese	4g.
Sponge Drops	4g.

However, consult **Mono Equipment** if intended product falls outside the above general machine specification to determine the exact capabilities of the "Omega" with any specific product.

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

- 1 Never use a machine in a faulty condition and always report any damage.
- 2 Only trained engineers may remove parts that need a tool to remove them.
- 3 Always ensure hands are dry before touching any electrical appliance (including cable, switch and plug). NEVER move machinery by pulling on the power cords or cables.
- 4 Ensure that the floor area around the OMEGA is clean to avoid slipping especially if carrying heavy hopper and template components to and from the machine.
- 5 All operatives must be fully trained.

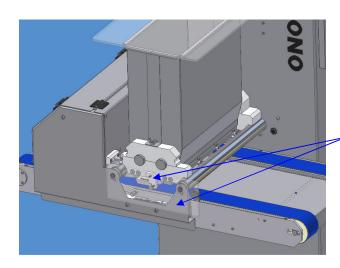
Use of the machine can prove dangerous if:

- the machine is operated by untrained or unskilled staff
- □ the machine is not used for its **intended purpose**
- the machine is not operated correctly

All safety devices applied to the machine during manufacture and the operating instructions in this manual are required to operate this machine safely. The owner and the operator are responsible for operating this machine safely.

- 6 People undergoing training on the machine must be under **direct supervision**.
- 7 Do not operate the machine with any panels or guards removed. They are there to protect you.
- **No loose clothing or jewellery** should be worn while operating the machine. They could cause damage to the machine and person.
- 9 Switch off power at the mains isolator when machine is not in use and before carrying out any cleaning or maintenance.

- 10 The bakery manager or the bakery supervisor should carry out **daily safety checks** on the machine.
  - 11 Do not operate machine without a hopper template and the guard fitted correctly.



### (11) HOPPER TEMPLATE AND GUARD FITTED

#### NOTE

Guard can be plastic or metal depending on the machine model

12 Due to the essential requirement for handling heavy components during cleaning, it is recommended that **protective footwear** be worn when carrying out such procedures.

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

- 1. Ensure that the depositor is connected to correct electric supply, as specified on the serial number plate on the side of the machine.
- 2. Ensure that the correct fuse rating is fitted in the electrical supply
- 3. Position the machine in the correct position for working and lock the two locking wheels to stop movement.

### 6.0 ISOLATION



### IN AN EMERGENCY, SWITCH OFF AT THE ELECTRICAL MAINS WALL ISOLATOR, OR PUSH THE EMERGENCY STOP BUTTON.

To release the emergency stop button, turn clockwise.





### 7.0 CLEANING INSTRUCTIONS

Omega PLUS

### **NOTE:**



- Cleaning must be carried out by fully trained personnel only.
- Isolate machine from mains supply before carrying out any cleaning.
- Do not steam clean or use a jet of water.

-Do not use any form of caustic detergent or abrasive cleaners. -

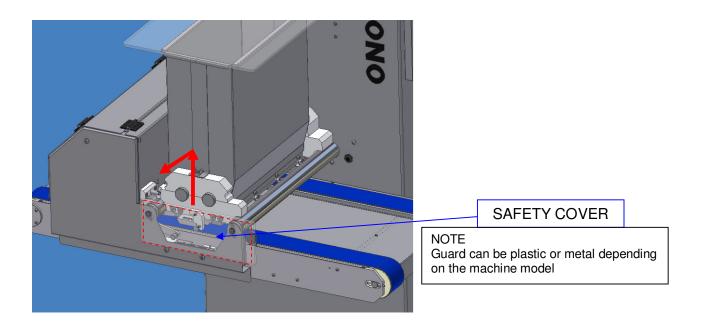
All the outer surfaces of the machine should be wiped over daily with warm soapy water.

### HARD AND SOFT DOUGH HOPPERS

**BETWEEN PRODUCT MIX CHANGES** 

The feed hopper, pump assembly, template, nozzles etc. should be removed from the machine and dismantled for thorough cleaning between product mix changes.

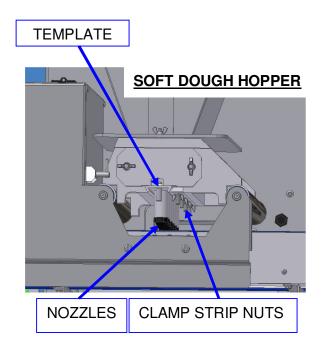
- 1. Open hopper and remove excess mixture remaining.
- 2. Lift off front safety cover.

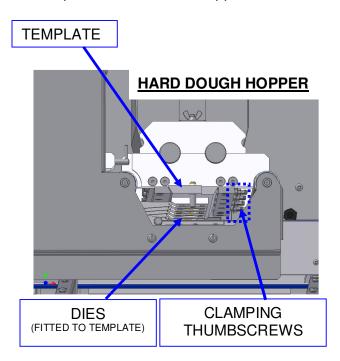


3. <u>Slacken</u> template clamp strip nuts or thumbscrews (depending on type of hopper)
Remove fitted template from pump assembly by sliding out to avoid subsequent damage.

### NOTE.

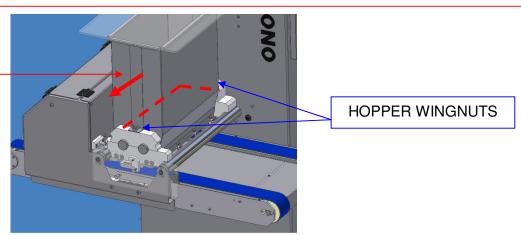
Thumbscrews only need to be released slightly to allow the template to slide away from the pump assembly. If loosened too much, the template will have to be supported.





4 To reduce weight and bulk, separate and remove empty feed hopper from pump assembly, whilst still on the machine, by unscrewing the wing nuts.

To gain access to the inner wing nut, slide the complete hopper away from the machine body slightly (keep on support bars) - this will also disengage the pump assembly from the drive shaft.



Ensure that the nuts are placed where they will not be lost.

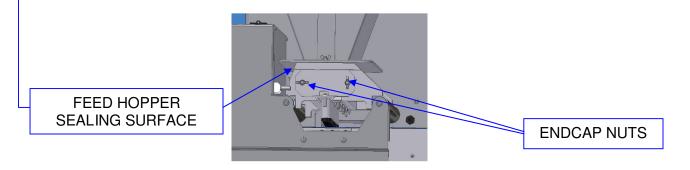


### **CAUTION:**

The feed hopper and pump assembly exceeds 25kg and will need to be lifted off by two people, or dismantled into smaller components while still on the machine.

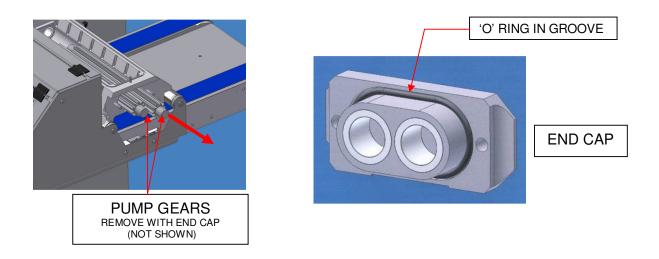
Take care to avoid damage to the sealing surface of the feed hopper during removal, cleaning, assembly and storage.

- 1. After removing the feed hopper, check condition of feed hopper seal.
- 2. Unscrew the end cap retaining nuts from the accessible side of the pump assembly. [Ensure that the nuts are placed where they will not be lost.]



3. Withdraw the end-cap with the pump gears.

Ensure that the 'O' sealing ring on the inside of the end cap is not damaged during cleaning.



4. Remove remainder of pump assembly from the machine and remove remaining end-cap to fully dismantle pump assembly components for cleaning.

### **HARD DOUGH HOPPER**

Omega PLUS



### **CAUTION:**

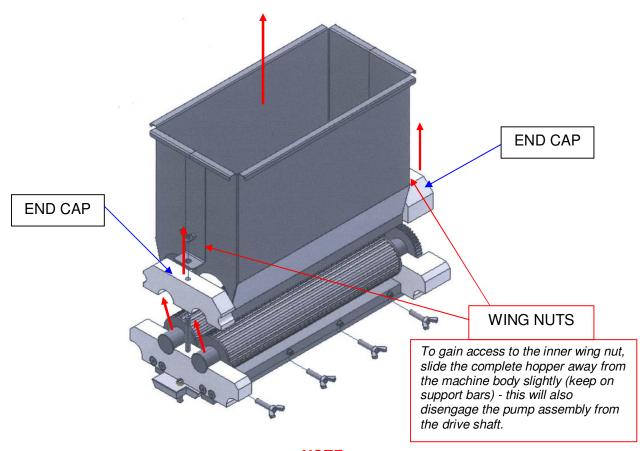
The feed hopper and pump assembly exceeds 25kg and will need to be lifted off by two people, or dismantled into smaller components while still on the machine.

To reduce weight and bulk, separate and remove empty feed hopper from pump assembly, whilst still on the machine, by unscrewing the wing nuts.

(Ensure that the nuts are placed where they will not be lost.)

The pump assembly will now be lighter and more easily removed.

- 1. Lift off both upper plastic end-caps.
- 2. Remove both gears from the assembly, one at a time, by lifting vertically.
- 3. Remove remainder of pump assembly from the machine for cleaning.



### NOTE:

Use only warm soapy water to clean these parts. They should be rinsed and thoroughly dried before re-assembly.

The greatest care must be taken not to drop any parts.



Do not leave any components in the hopper.



To obtain the best product results and consistent operation,

- ✓ Make sure the depositor is used on a **level floor**.
- ✓ Ensure flat trays of consistent length, width, material and edge dimensions are used.
- ✓ Ensure undamaged nozzles and templates are used.
- ✓ Keep the machine clean.



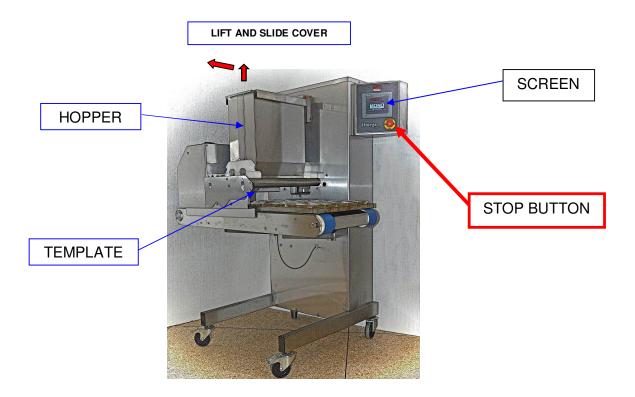
### 9.0 PREPARING FOR OPERATION

Omega PLUS

The use of templates and/or accessories not produced or supplied by MONO Equipment will invalidate the machine's warranty

1 Select template and nozzles (and finger frame, if wirecut is to be used) and fit as section 9a & 9b (following pages). Fill hopper with mix and close hopper cover.

It is recommended that when heavy mixes are used, the inside of the hopper should be coated with vegetable oil; for lighter mixes such as meringue, dampen with water. The oil or water will help the mix to settle down the hopper walls and prevent air being sucked in.



- 2 Connect power cable to electrical supply.

  Make sure stop button is in released position (turn clockwise if required).
- 3 Select an existing program or create a new program through the on-screen menus. (see section 10 operation)
- 4 The machine is now ready for operation.

Omega PLUS

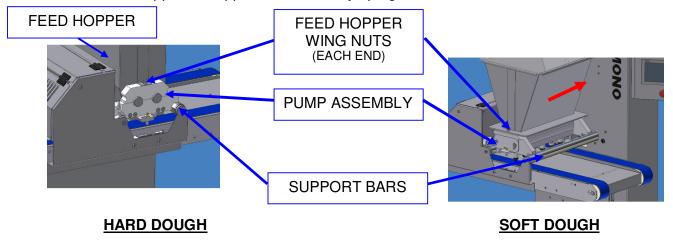
### 9a FITTING THE HOPPER

CAUTION SHOULD BE TAKEN WHEN FITTING THE HOPPER
AND PUMP ASSEMBLY, AS WEIGHT EXCEEDS 25kgs ON SOME MODELS
It will need to be lifted on by two people, or
dismantled into smaller components before fitting on the machine.

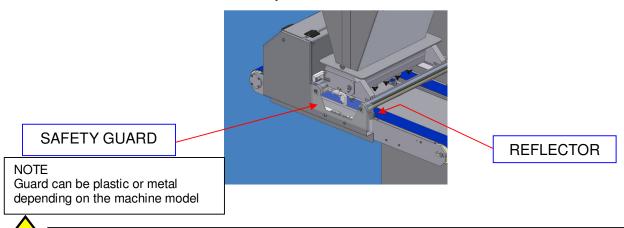
MAKE SURE THE FLOOR AREA AROUND THE MACHINE IS CLEAN

To reduce weight and bulk, fit the complete hopper assembly in two stages - first the pump assembly onto the support bars, then the feed hopper body onto the pump assembly.

- 1 By hand, align pump assembly drive gear roller with drive shaft on machine.
- **2** Fit hopper to pump assembly and secure with wing nuts.
- 3 Slide hopper on support bars until fully up against machine.



After the hopper is fitted, the safety guard **MUST BE** replaced with the reflector facing towards the machine body.



DO NOT OPERATE MACHINE WITHOUT TEMPLATE FITTED

Omega PLUS

### 9b FITTING A TEMPLATE

### • Soft dough

Non-rotary templates can be fitted with nozzles. This requires screwing the nozzles into the threaded holes provided.

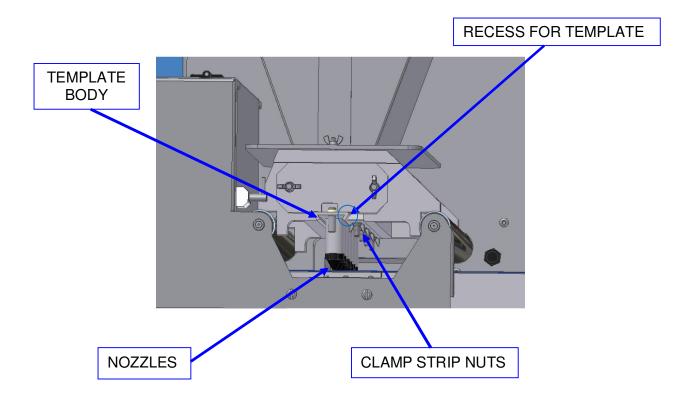
<u>Rotary templates</u> can have plastic nozzles screwed into nozzle holders (straight or offset).

OR

Metal nozzles secured in place by a separate nut.

- 1 Select template and nozzles required.

  (Nozzles are not required for sheeting, staggered or stub templates)
- 2 Attach nozzles to template body:



- 3 Slide the template into the matching recess at the base of the pump assembly until the stop is in position.
- **4** Tighten the nuts on the clamp strip (on underside of pump assembly) to secure template.

**NOTE.** If the nuts are not securely tightened, leakage of mix will occur, affecting deposit weights.





### BEFORE USING STRAIGHT & OFFSET NOZZLE HOLDERS "O" RINGS MUST BE FITTED

Nozzle holders provide the means of attaching standard plastic nozzles to the soft dough rotary templates and the sealing rings need to be fitted before using and may need replacing occasionally to ensure correct operation.

"O" RING PART NUMBER = A900-12-010 (SUPPLIED IN BAGS OF 20)



LOOP FIRST RING OVER END



SLIDE RING DOWN TO GROOVE



FIRST RING IN CORRECT POSITION



LOOP SECOND RING OVER END



SLIDE RING DOWN TO SECOND GROOVE, PASSING OVER FIRST RING



SECOND RING IN CORRECT POSITION

### Hard dough

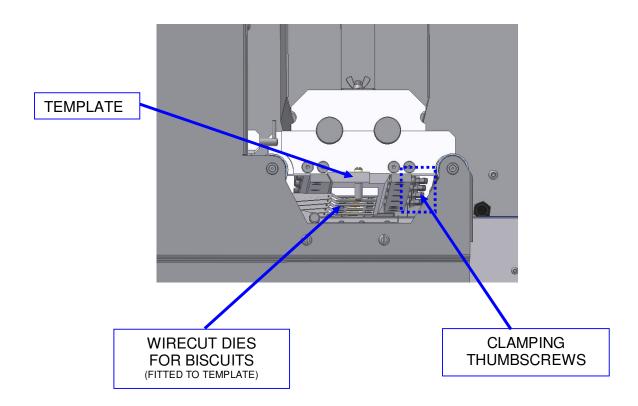
Non-rotary templates that can be fitted with nozzles require them to be secured in place with a separate nut. *Nozzles are not required for sheeting or wirecut templates.* 

Rotary templates require nozzles to be secured in place with a separate nut.

- 1 Select wirecut template or template and nozzles required.
- 2 Attach nozzles (if required) to template body using special nut:
- 3 Slide template into position and hand-tighten thumbscrews.

### NOTE.

Thumbscrews only need to be released slightly to allow the template to slide away from the pump assembly. If loosened too much, the template will have to be supported while the screws are tightened.





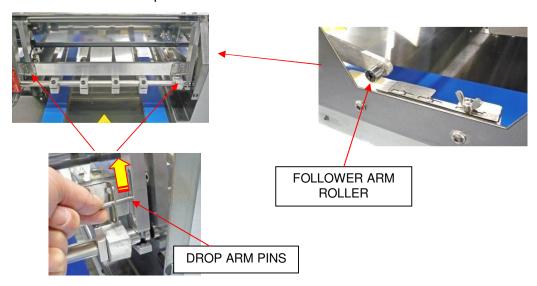
DO NOT OPERATE MACHINE WITHOUT TEMPLATE FITTED



### IF WIRECUT IS FITTED

### FITTING WIRECUT FINGERS

- 1. Select wirecut fingers that suit the chosen template to be used.i.e. the correct number to match the number of dies across template.
- 2. Remove drop arm pins and insert finger frame into arms. Ensure that the follower arm roller is positioned on the cam track.



- 3. Replace drop arm pins.
- 4. Disconnect motor release knob and push fingers forward in order to line up the wire with the dies.

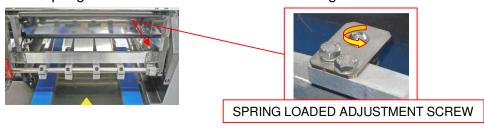


FINGER ADJUSTING BOLTS

5. Adjust individual finger bolts to raise the wire to touch the bottom surface of the dies used in the template.

OR

Adjust the spring loaded screw to raise or lower all fingers at the same time.

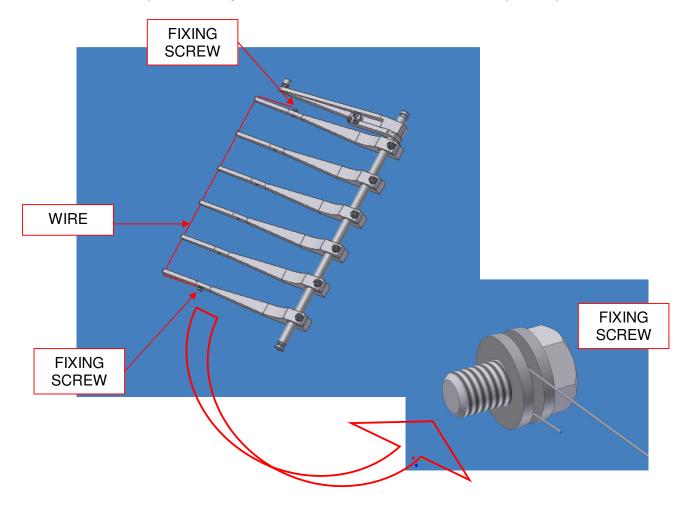


### IF WIRECUT FITTED

### **REPLACING BROKEN WIRE**

MAKE SURE THAT ALL PIECES OF WIRE HAVE BEEN FOUND BEFORE OPERATING MACHINE AFTER A WIRE REPLACEMENT.

- 1. Remove wirecut fingers from the machine.
- 2. Remove all parts of broken wire
- 3. Feed new wire round fixing screw, between washers and tighten screw.
- 4. Feed the wire through the eyehole in the end of each finger.
- 5. Feed new wire round other fixing screw, between washers. Pull wire tight and tighten screw. (wire should be like a guitar string).
- 6. Replace the fingers back in the machine and check set up and operation.









ALL OPERATIONS ARE ACTIVATED BY TOUCHING AREAS ON THE SCREEN WITH A FINGER. DO NOT USE EXCESSIVE FORCE OR HARD OBJECTS AS THIS WILL INVALIDATE MACHINE WARRANTY.

# OPERATING KEY FOR FOLLOWING INSTRUCTIONS

BLUE \_\_ OPERATION

FOLLOW BLUE ARROWS AND BOXES TO OPERATE THE DEPOSITOR WITH ALREADY SAVED PROGRAMS

RED — CHANGE SETTINGS

FOLLOW RED ARROWS AND BOXES TO CHANGE SETTINGS AND CREATE NEW PROGRAMS



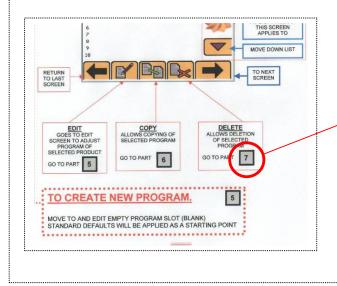
KEYBOARD ENTRY
REQUIRED

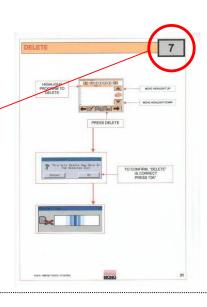
WHEN KEYBOARD APPEARS, A CODE MUST BE ENTERED BY TOUCHING THE NUMBERS IN THE CORRECT ORDER

IF A GREY BOX IS SHOWN IN THE BUTTON DESCRIPTION

e.g. 7 GO TO THE CORRESPONDING PAGE FURTHER
ON IN THE INSTRUCTIONS.

(MARKED IN TOP RIGHT HAND CORNER OF EACH PAGE)





### **START**

To turn on the machine, plug in the power cord and turn on the power supply.



This screen will be seen. Wait for the following screen to be displayed.



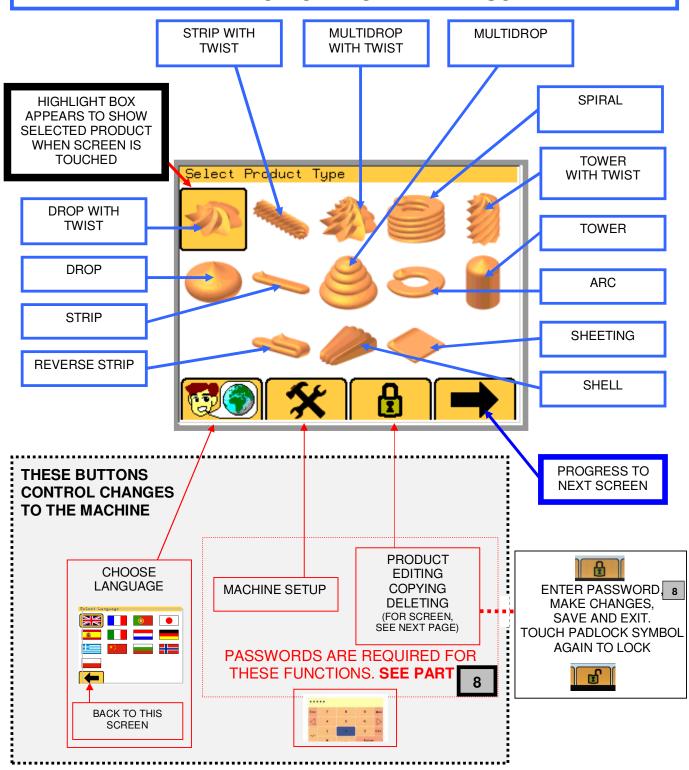
When this screen appears the machine is ready for operation. Touch the screen anywhere to start setup and operation.

### SELECT PRODUCT TYPE

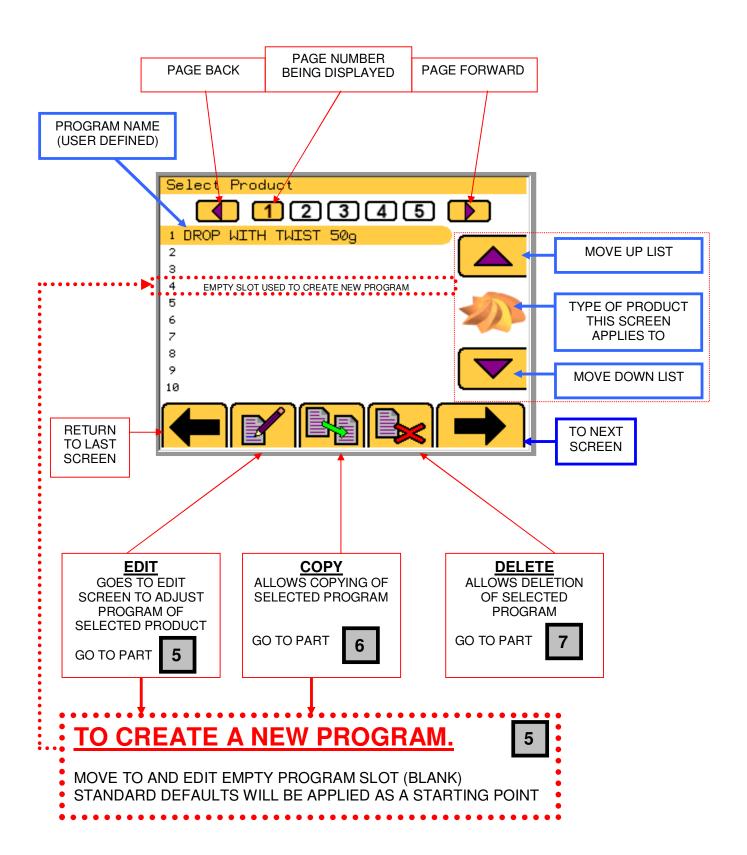


ALL OPERATIONS ARE ACTIVATED BY TOUCHING AREAS ON THE SCREEN WITH A FINGER. DO NOT USE EXCESSIVE FORCE OR HARD OBJECTS AS THIS WILL INVALIDATE MACHINE WARRANTY.

### TOUCH THE SCREEN FOR THE TYPE OF PRODUCT REQUIRED THEN TO MOVE TO THE NEXT SCREEN



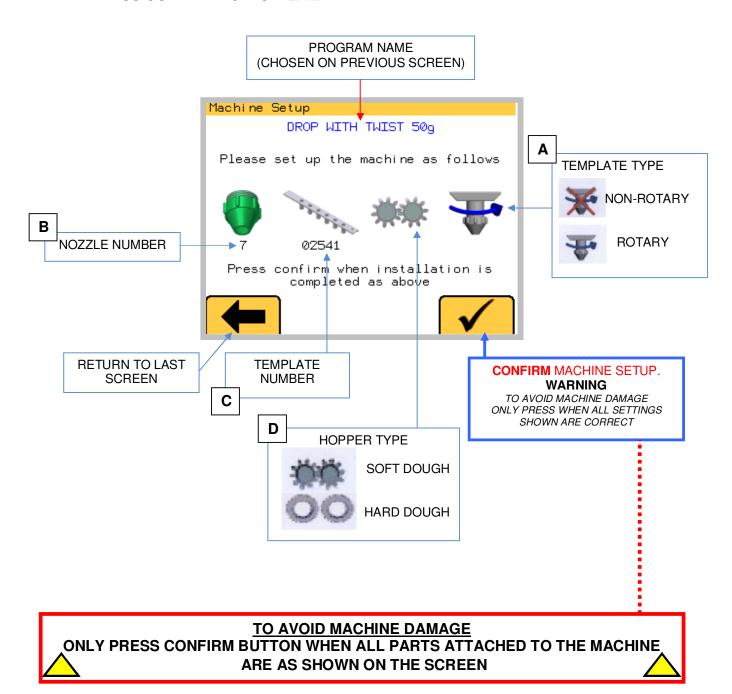
### OR CHOOSE EMPTY SLOT TO CREATE A NEW PROGRAM



### MACHINE MUST BE SET AS SHOWN ON THE SCREEN.

- **A.** Check template type (Rotary/Non-rotary)
- **B.** Check nozzle type (Number)
- **C.** Template number
- **D.** Check hopper type (Soft dough/Hard dough)

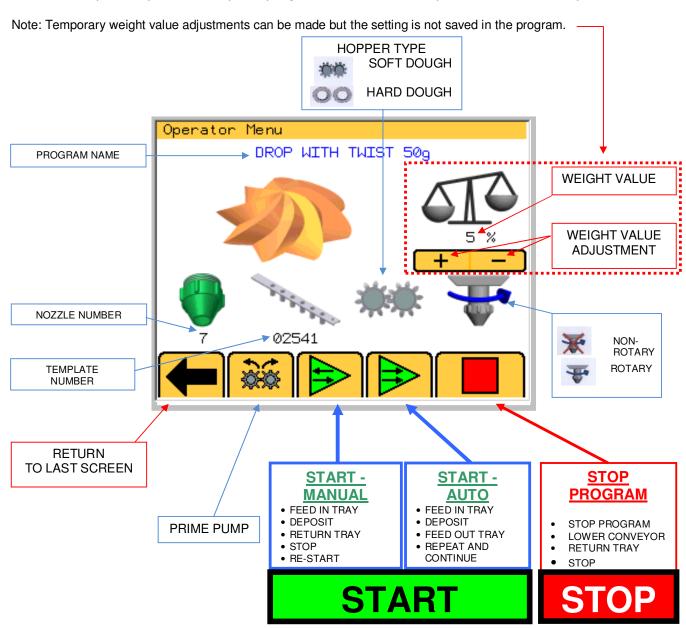
THEN PRESS CONFIRM BUTTON.

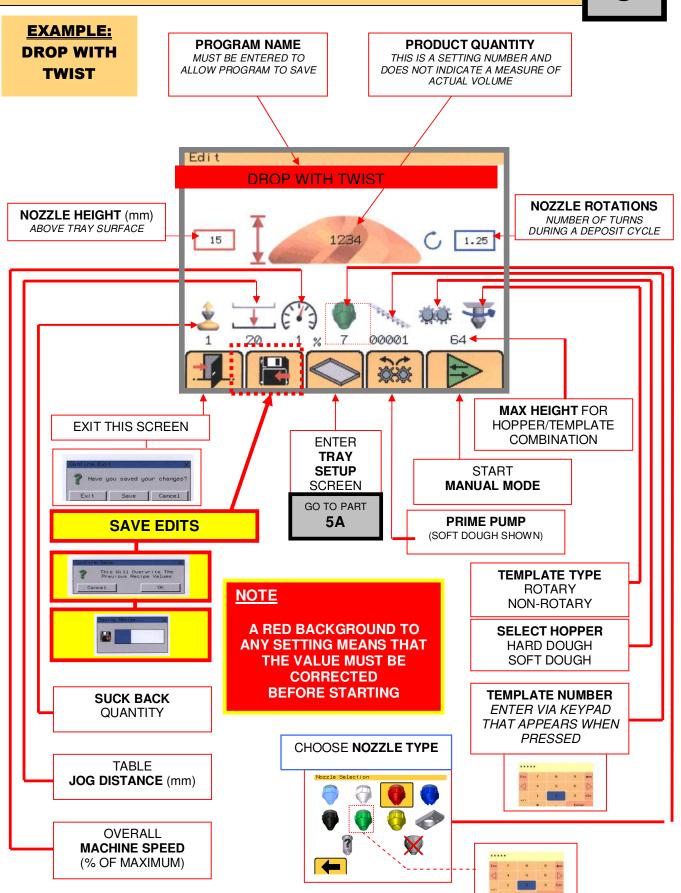


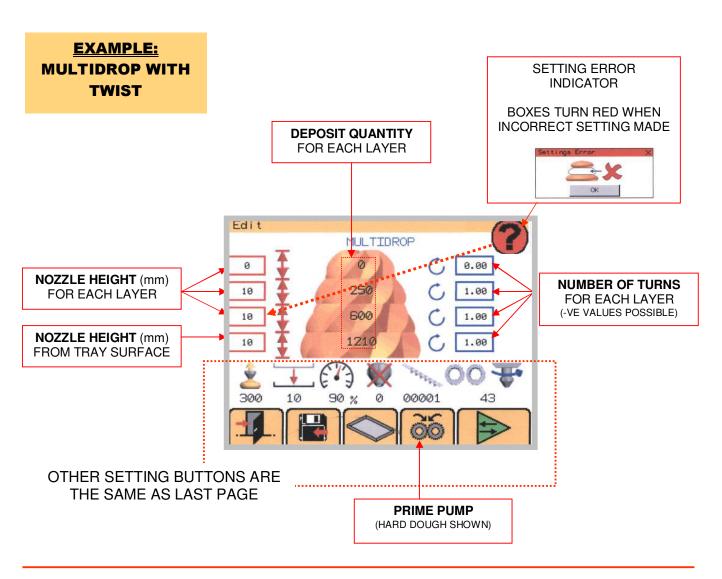
### **OPERATOR (START) SCREEN**

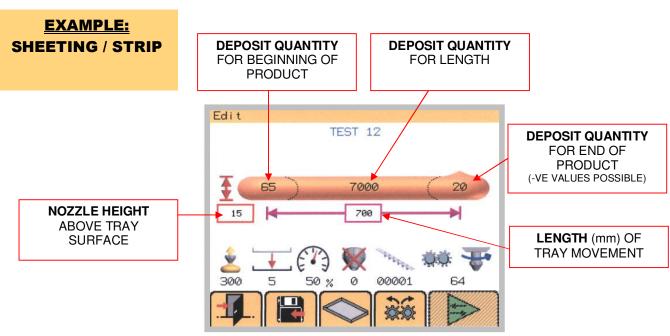
MACHINE SHOULD BE SET AS SHOWN ON THE SCREEN.
THIS SCREEN CONTROLS THE ACTIONS REQUIRED BY THE OPERATOR.

- 1. Fill the hopper with the required product.
- 2. If the settings are correct, press the prime button to deposit a small amount onto a spare tray until all nozzles are depositing equally.
- 3. Place tray in place
- 4. Press "start-manual" or "start-auto".
- 5. Press "stop" at any time to stop the program, lower the conveyor and return the tray.

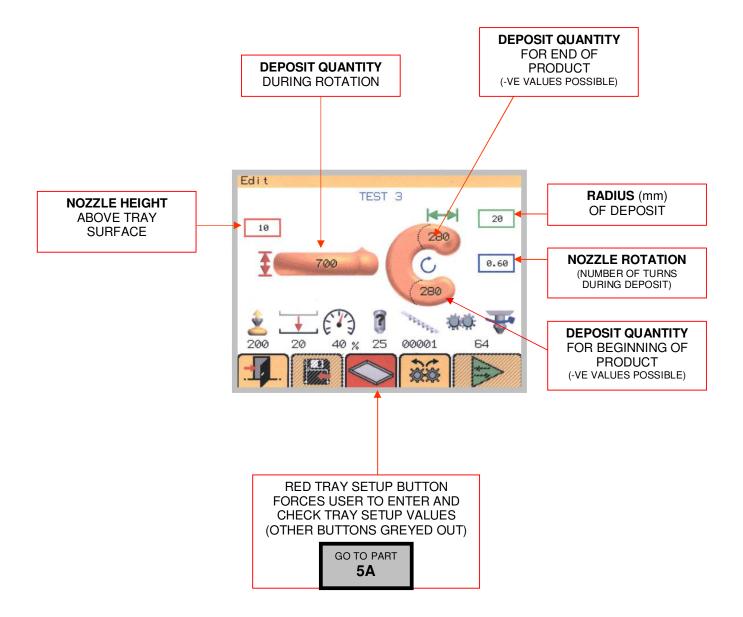


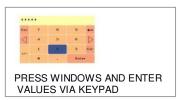


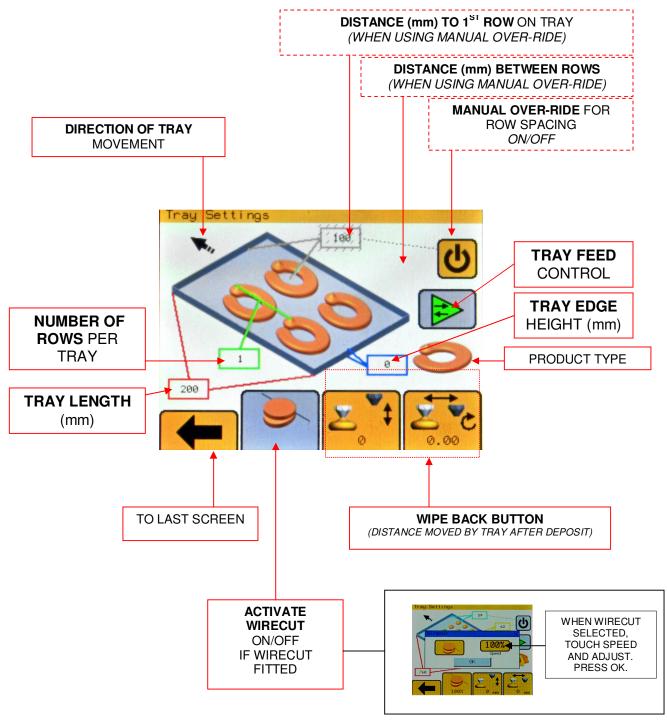


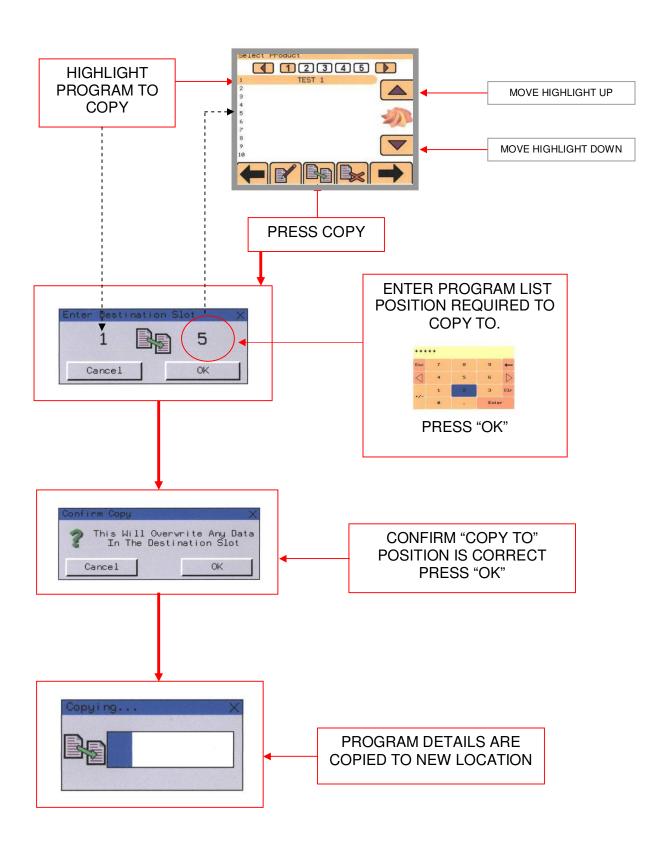


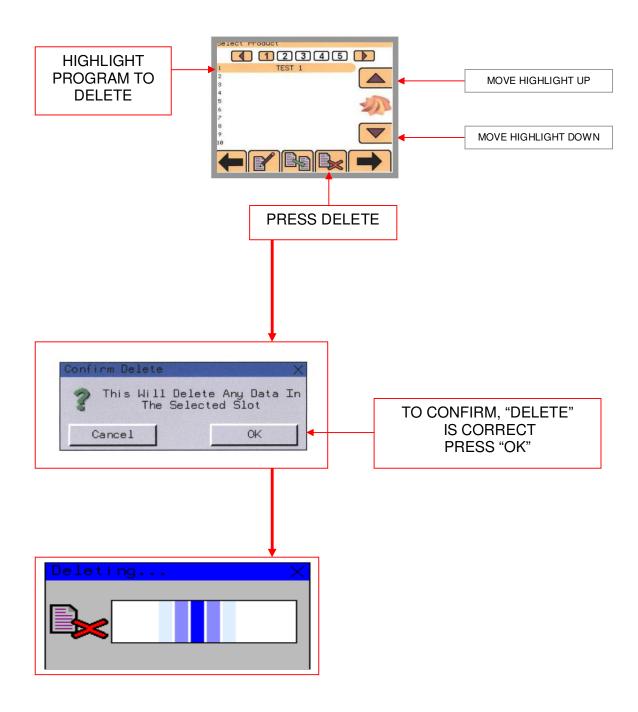
## EXAMPLE: "C" SHAPE (ARC)











### **PASSCODES**

8

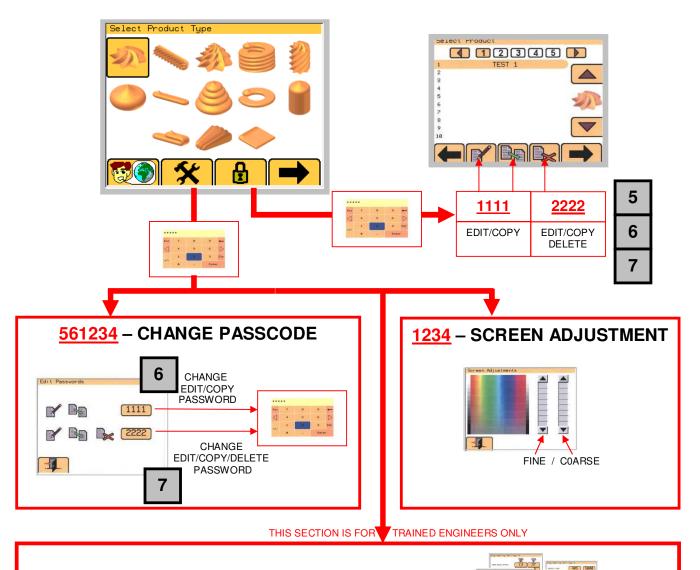
#### **SUGGESTION**

To stop unauthorised changes to the Omega setup, it is suggested that this page is removed from this manual and kept in a safe place for future reference.

If tampering could be a problem, It is also a good idea to change the passcodes at regular intervals.

### **CAUTION**

DO NOT ATTEMPT TO MAKE ADJUSTMENTS UNLESS YOU ARE FULLY AWARE OF THE RESULTS



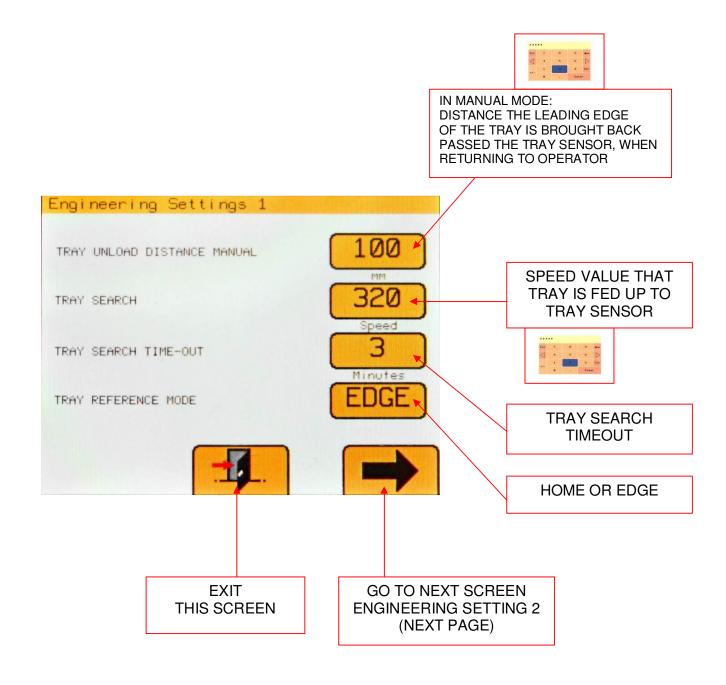
3142 -- ENGINEERING SETTINGS

2808 -- DIAGNOSTICS

RESET FACTORY DEFAULTS 01554777460

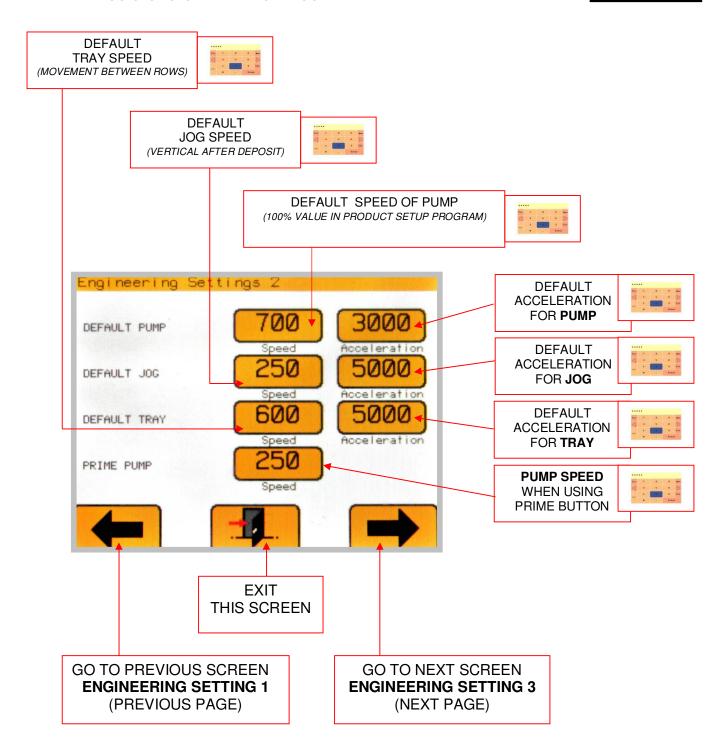


#### THIS SECTION IS FOR TRAINED ENGINEERS ONLY

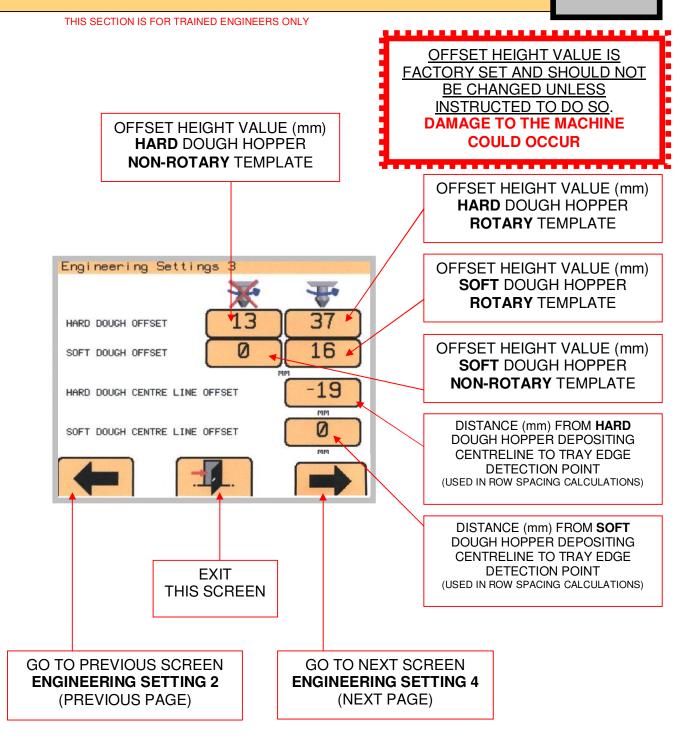


### **CAUTION**

THIS SECTION IS FOR TRAINED ENGINEERS ONLY



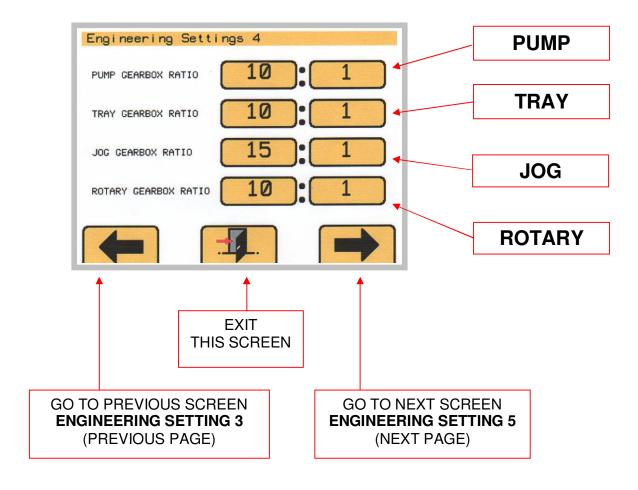
# **CAUTION**



### **CAUTION**

THIS SECTION IS FOR TRAINED ENGINEERS ONLY

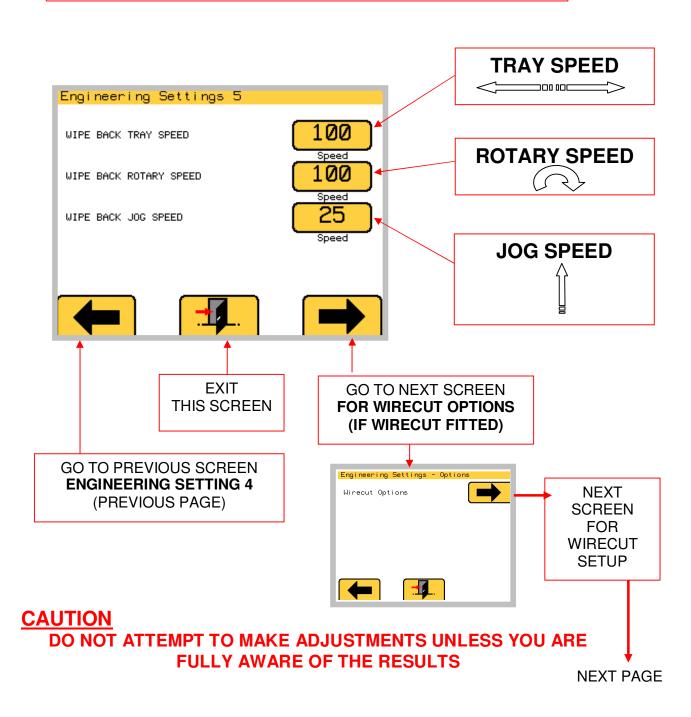
#### **GEARBOX RATIOS**



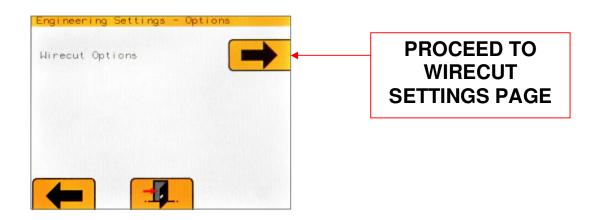
#### **CAUTION**

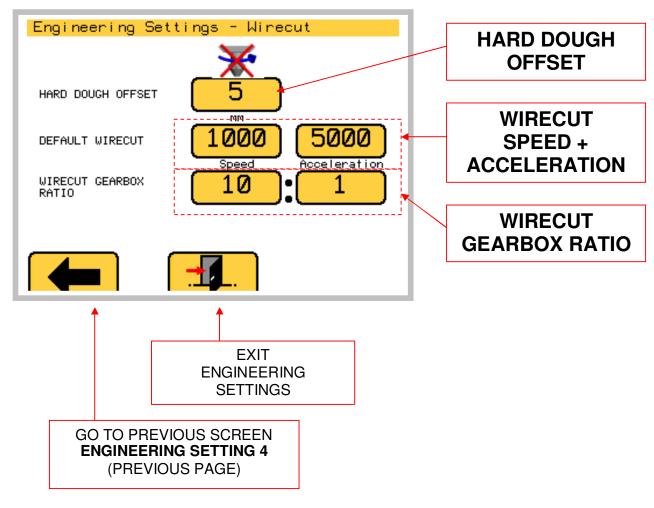
THIS SECTION IS FOR TRAINED ENGINEERS ONLY

# WIPE BACK DEFAULT SETTINGS (SEE 5A)



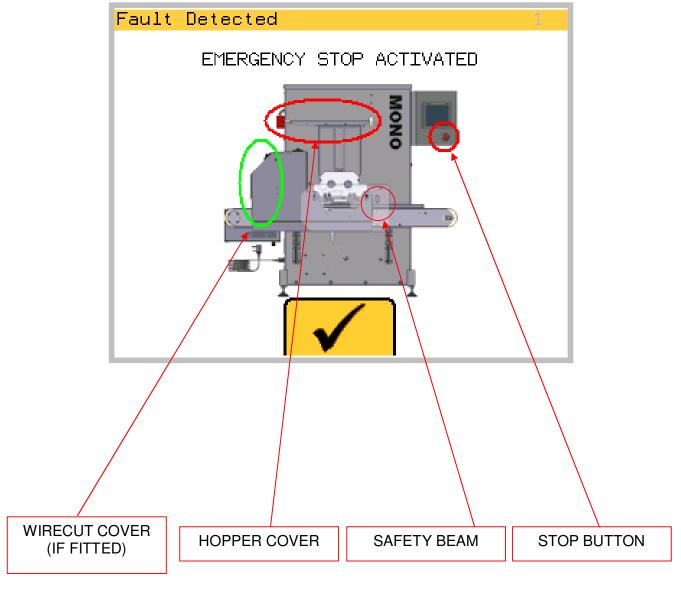
#### **WIRECUT SETTINGS**





## **CAUTION**

# **FAULT INFORMATION SCREENS**

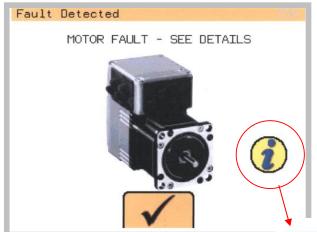


THIS SCREEN INDICATES A FAULT CONDITION IN THE SAFETY AREAS.

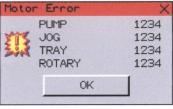
WHEN RED, CLOSE COVER OR CLEAR OBSTRUCTIONS TO CLEAR FAULT. WHEN INDICATOR GOES GREEN, FAULT HAS BEEN CORRECTED AT THAT POSITION.

WHEN ALL FAULTS HAVE BEEN CORRECTED, PRESS 
BUTTON TO CLEAR SCREEN

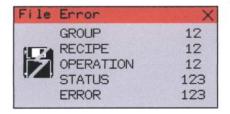
IF THE FOLLOWING SCREEN APPEARS, CHECK THAT THE TABLE MOVEMENT ETC. IS NOT JAMMED WITH SOMETHING. IF IT IS, CLEAR THE OBSTRUCTION AND PRESS TO PROCEED.



PRESS THIS BUTTON IF MORE INFORMATION IS REQUIRED AS TO WHICH MOTOR IS AT FAULT



IF THE FAULT IS NOT OBVIOUS AND NOT ABLE TO BE CLEARED SAFELY, A SUITABLY TRAINED ENGINEER SHOULD BE CALLED



ERROR WHEN LOADING/SAVING RECIPE DATA TO HMI STORAGE CARD PLEASE CONTACT SERVICE DEPT. / ENGINEER IF PROBLEM PERSISTS

**Omega PLUS** 

# 11.0 MAINTENANCE

Under most conditions the machine only needs to be kept clean and used as instructed in this manual.



WARNING: DO NOT UNDER ANY CIRCUMSTANCES USE A WATER HOSE OR PRESSURE WASHER TO CLEAN THIS MACHINE.

# Mono Omega Touch

# Check and Maintenance Schedule

Operation	Daily	weekly	3 monthly	Yearly
Clean depositor as per instructions in manual	*			
Check condition of supply lead and plug	*			
check fit of guards	*			
Clean under conveyor belts		*		
Check hopper seals		*		
Check end cap seals		*		
Check condition and tension of conveyor, adjust / replace as required			*	
Check end cap bearings			*	
check alignment of sensors on guards			*	
Check tray sensor is secure			*	
Check condition of idle roller bearings				*
Check condition of drive shaft bearings				*
Check condition and tension of chain and grease as required				*
Grease slides as required				*
adjust eccentric guide rollers as required				*
adjust concentric guide rollers as required				*
Check and grease all slide plates as required				*
Check all motor mounts are tight				*
inspect electrical connections and tighten as required				*

Under no circumstances should maintenance or cleaning of this machine be done with the power connected

## 12.0 SPARES AND 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

# **UK SERVICE, SPARES and OVERSEAS SUPPORT:**



Queensway Swansea West Industrial Estate Swansea. SA5 4EB UK

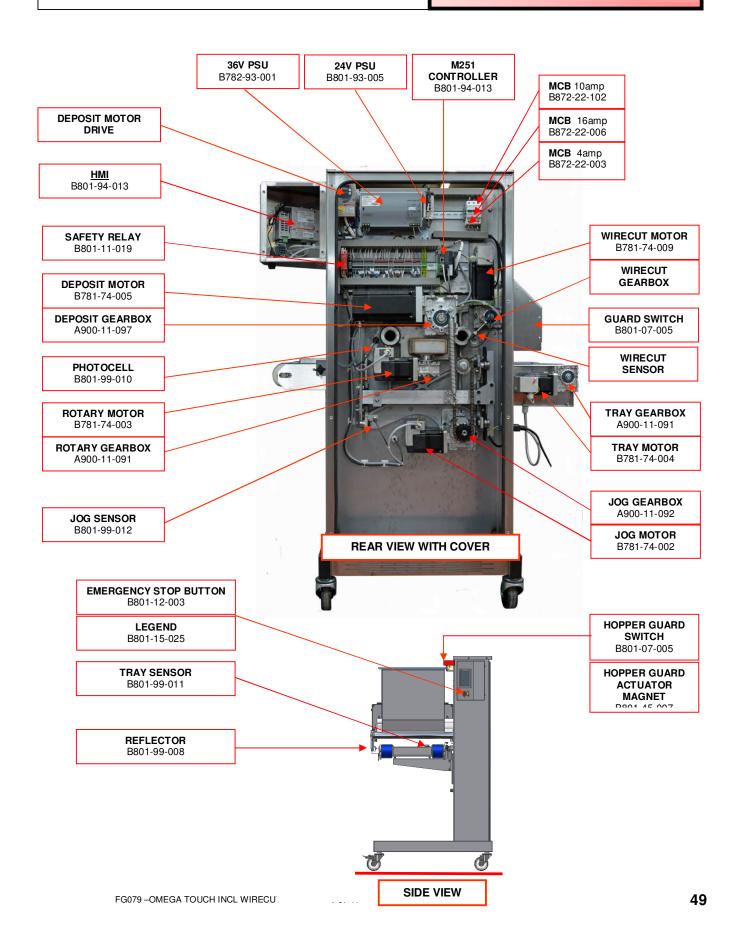
email:spares@monoequip.com Spares Tel. +44(0)1792 564039 Web site:www.monoequip.com

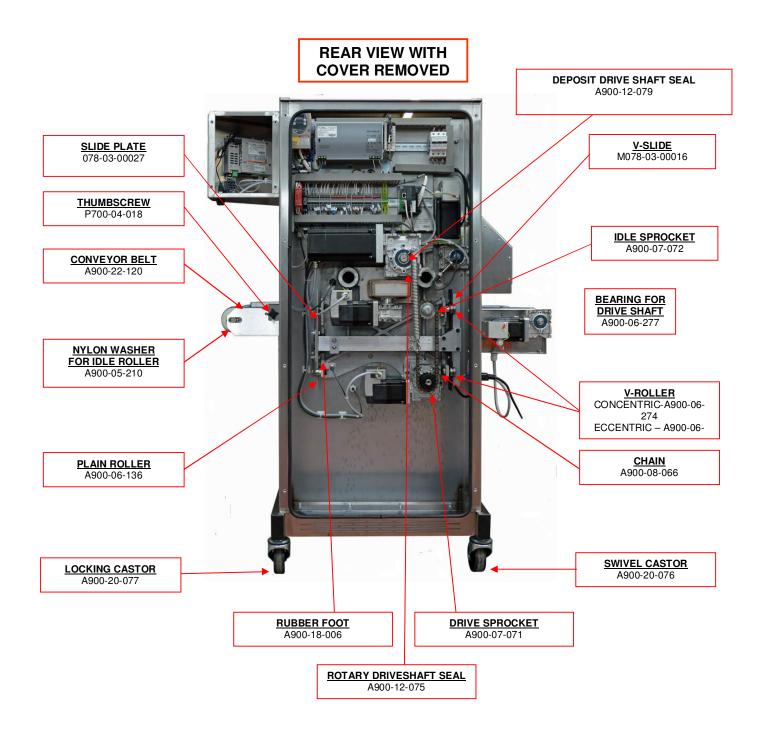
> Main Tel. 01792 561234 Fax. 01792 561016

# **BASE MACHINE SPARES LIST**

Spares Item Description	Mono Part No.	Qty Req. per M/C
Deposit Gearbox	A900-11-097	1
Jog Gearbox	A900-11-092	1
Rotary Gearbox	A900-11-091	1
Tray Gearbox	A900-11-091	1
Concentric Guide Roller	A900-06-274	2
Eccentric Guide Roller	A900-06-273	2
V Slide	078-03-00016	1
Slide Plate	078-03-00027	1
Jog Drive Chain	A900-08-066	1
Simplex Sprocket 16T 1/2" Pitch	A900-07-071	1
Idler Sprocket 16T 1/2" Pitch	A900-07-072	1
Circlip-Ext Metric 14mm Dia	A900-01-280	1
Circlip-Ext Metric 24mm Dia	A900-01-193	1
Drive Shaft – Hopper	078-03-00015	1
Rotary Drive Shaft	078-03-00011	1
Drive Gear - Rotary Template	078-03-00010	1
Lip Seal (Rotary Drive Shaft)	A900-12-075	1
Lip Seal (Deposit Drive Shaft)	A900-12-079	1
End Guard	078-11-00036	1
End Guard (wirecut version)	078-11-00057	1
Retainer – End Guard	078-11-00035	2
Seal-Rear Cover	A900-25-309	1

#### **ELECTRICAL COMPONENT LAYOUT PARTS**

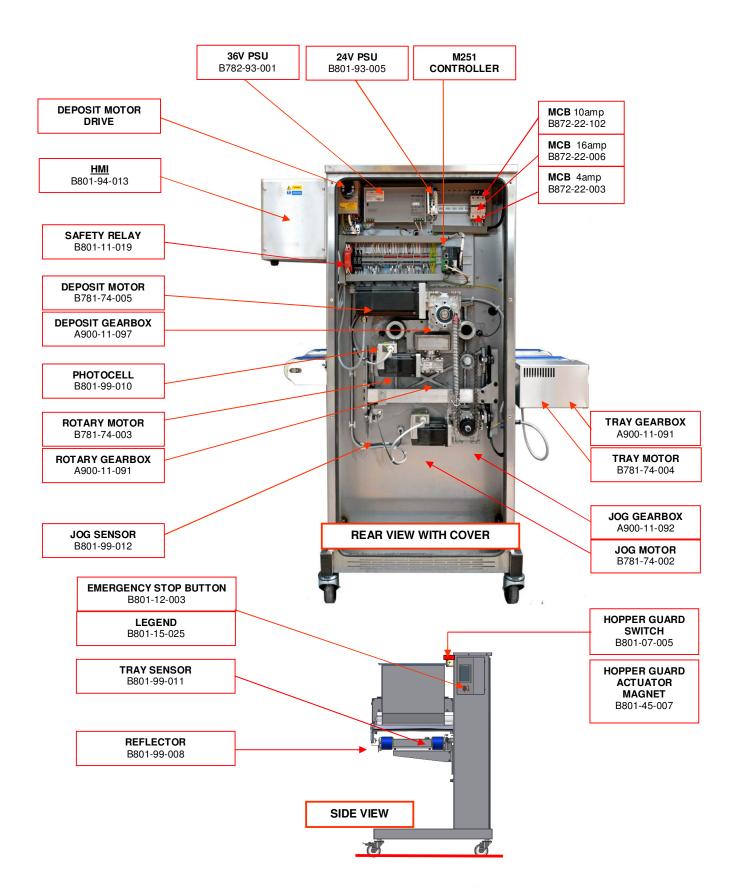




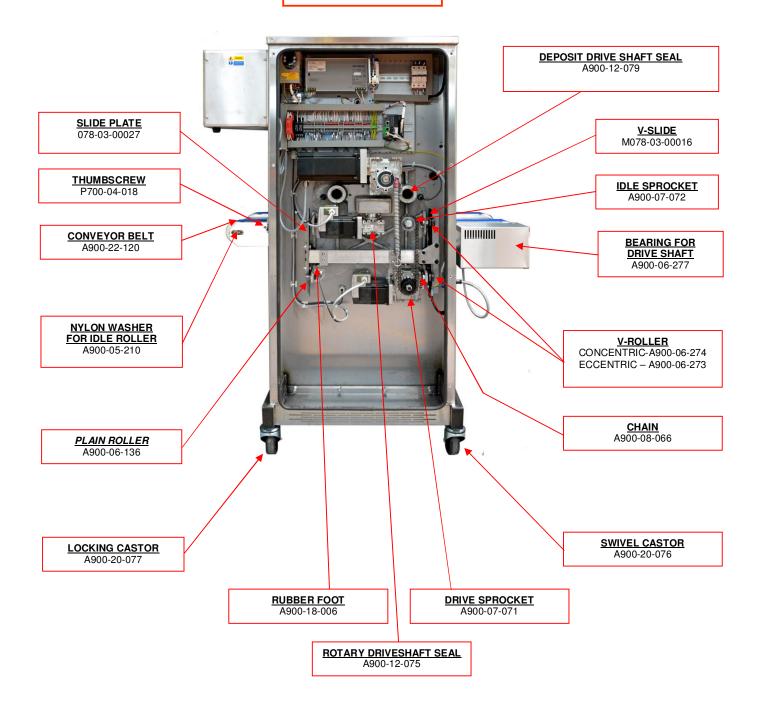
# **BASE MACHINE SPARES LIST**

Spares Item Description	Mono Part No.	Qty Req. per Machine
Deposit Gearbox Jog Gearbox Rotary Gearbox Tray Gearbox	A900-11-097 A900-11-092 A900-11-091 A900-11-091	1 1 1 1
Concentric Guide Roller Eccentric Guide Roller	A900-06-274 A900-06-273	2 2
V Slide Slide Plate	078-03-00016 078-03-00027	1 1
Jog Drive Chain	A900-08-066	1
Simplex Sprocket 16T 1/2" Pitch Idler Sprocket 16T 1/2" Pitch Circlip-Ext Metric 14mm Dia Circlip-Ext Metric 24mm Dia	A900-07-071 A900-07-072 A900-01-280 A900-01-193	1 1 1 1
Drive Shaft – Hopper Rotary Drive Shaft Drive Gear - Rotary Template	078-03-00015 078-03-00011 078-03-00010	1 1 1
Lip Seal (Rotary Drive Shaft) Lip Seal (Deposit Drive Shaft)	A900-12-075 A900-12-079	1
End Guard End Guard (wirecut version)	078-11-00036 078-11-00057	1 1
Retainer – End Guard	078-11-00035	2
Seal-Rear Cover	A900-25-309	1

# **ELECTRICAL COMPONENT LAYOUT PARTS**



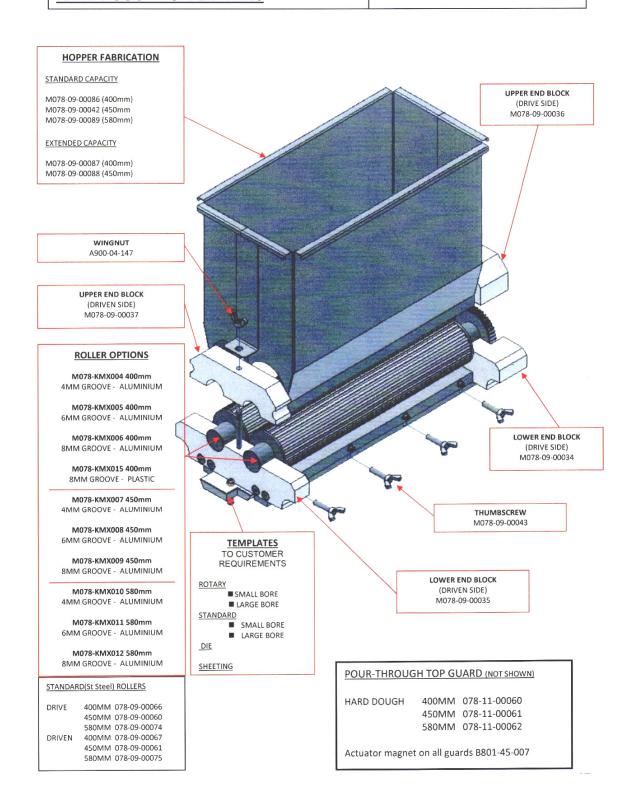
# REAR VIEW WITH COVER REMOVED

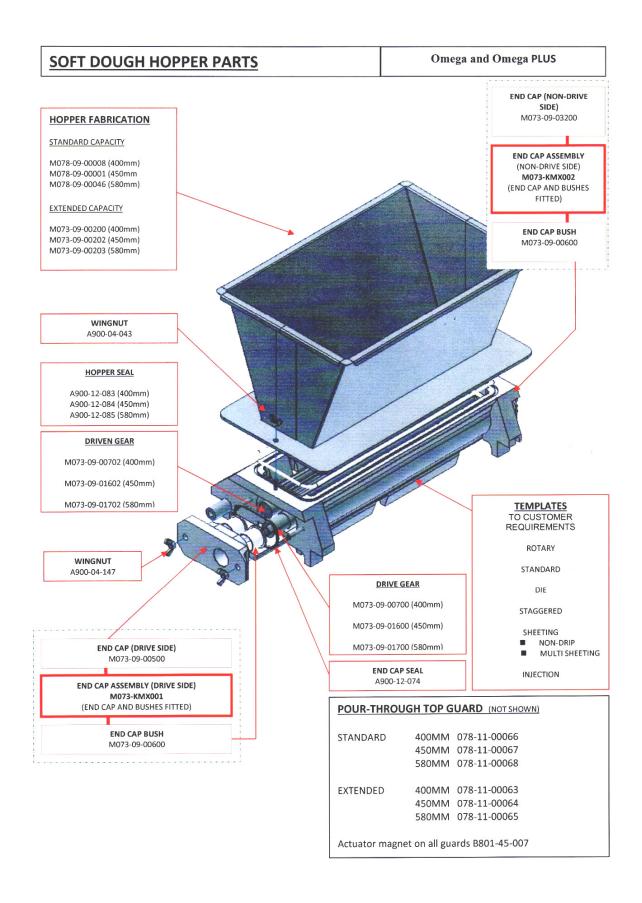




# — Omega— HOPPER PARTS

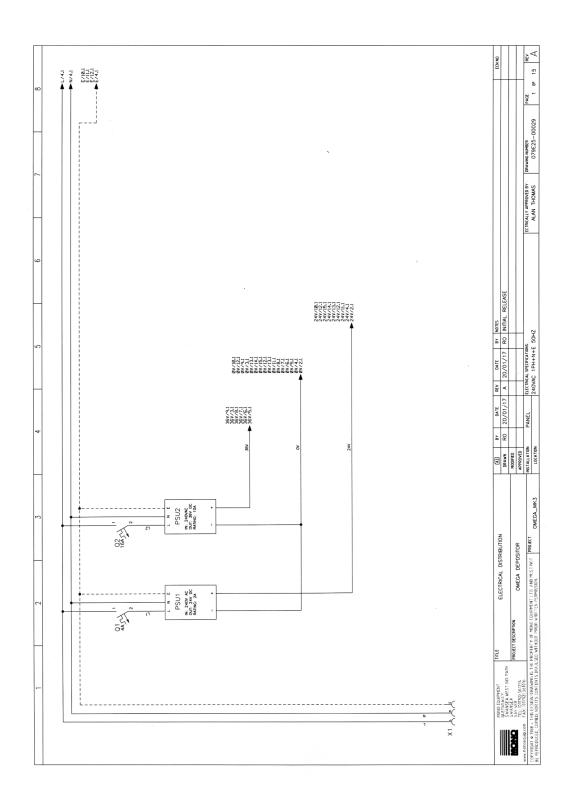
#### HARD DOUGH HOPPER PARTS

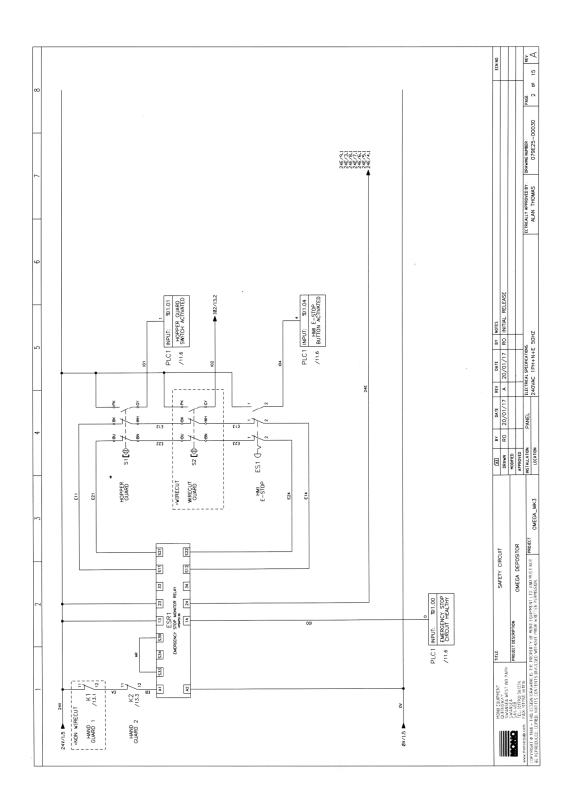


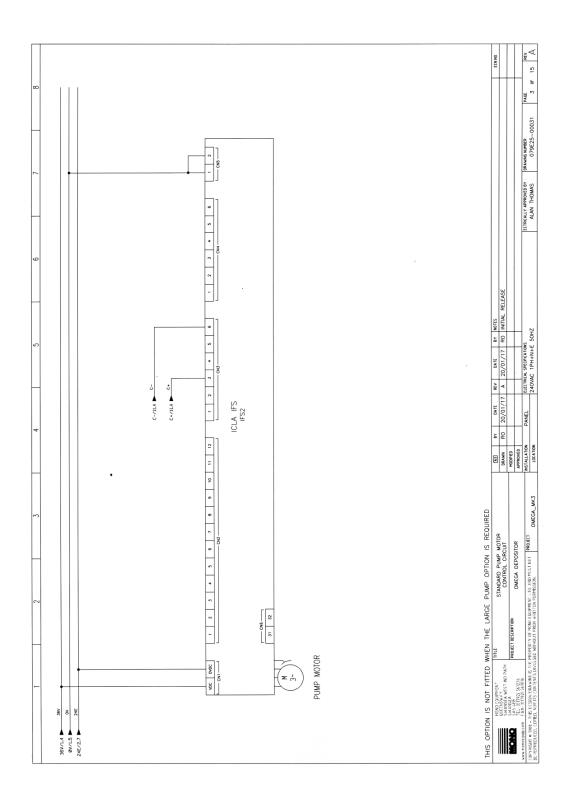


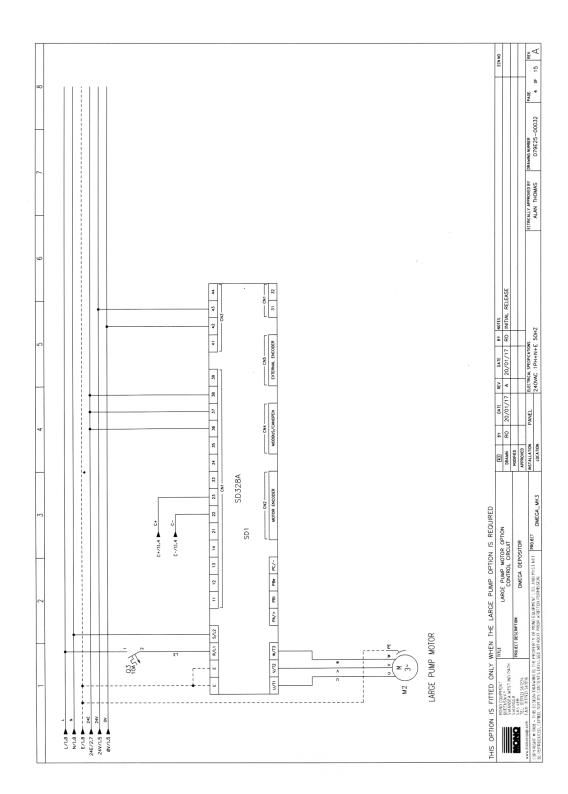


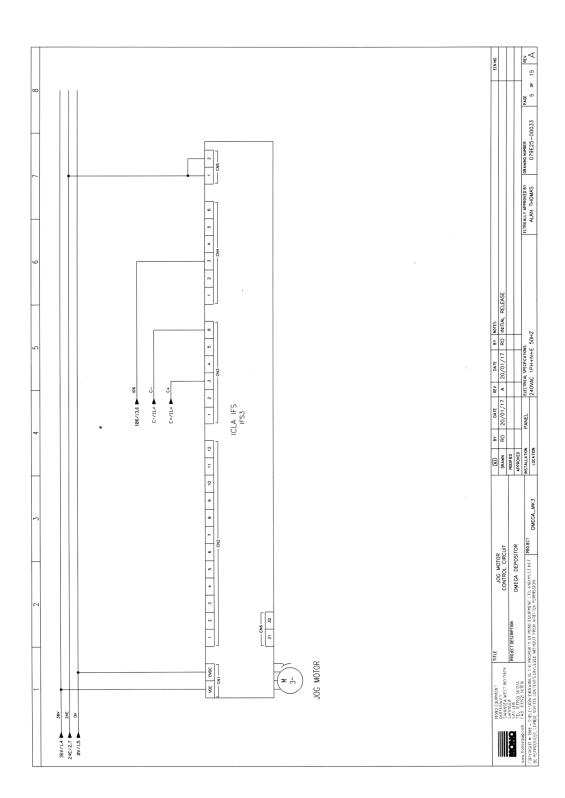
# 13.0 ELECTRICAL INFORMATION

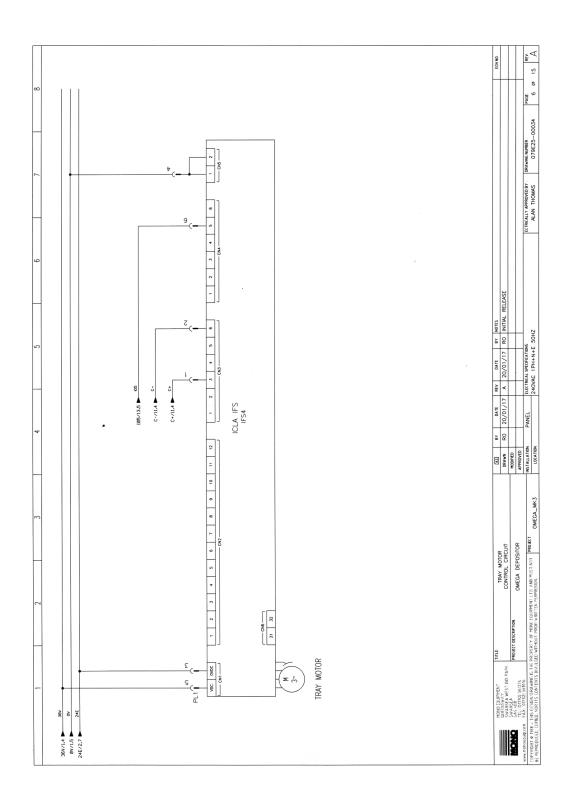


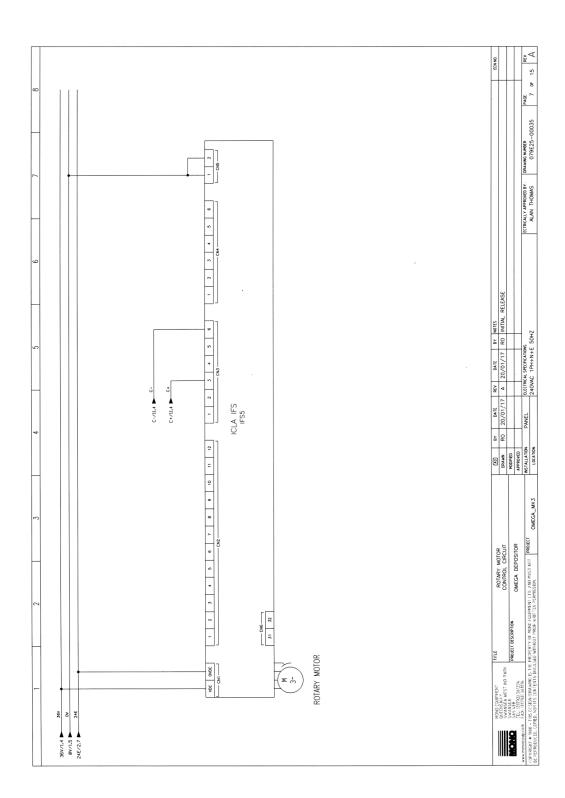


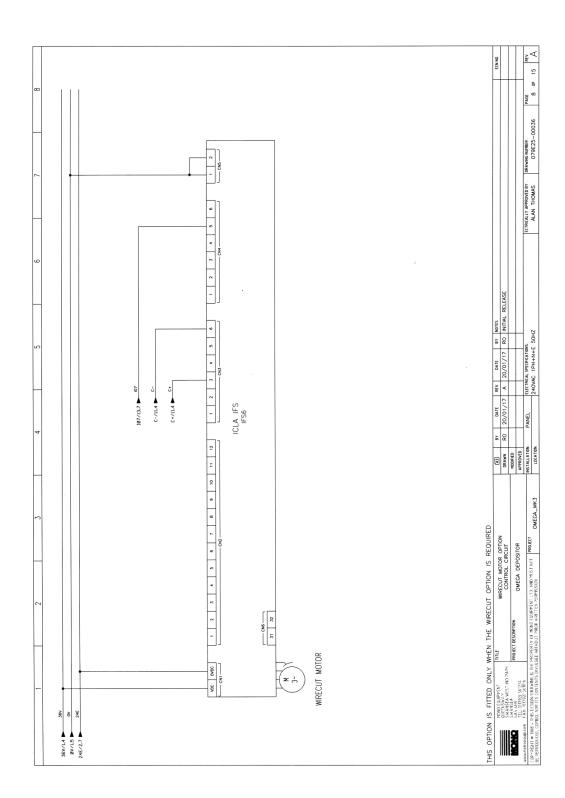


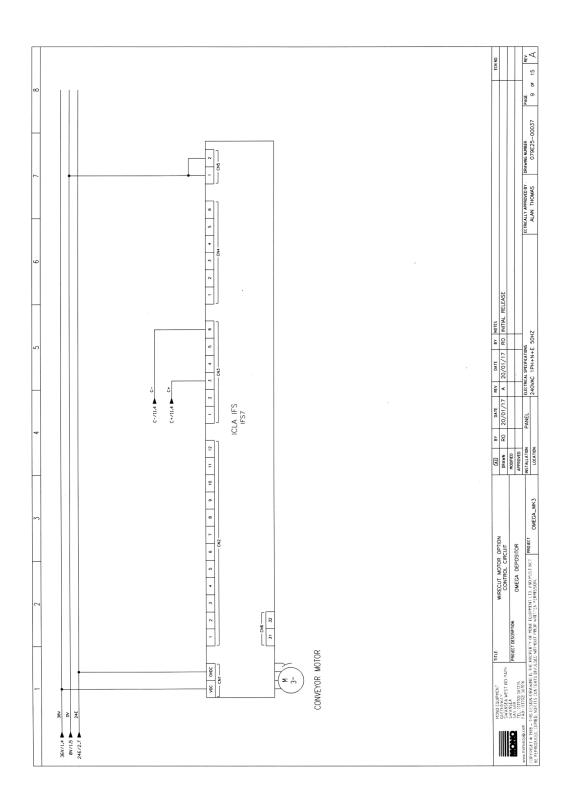


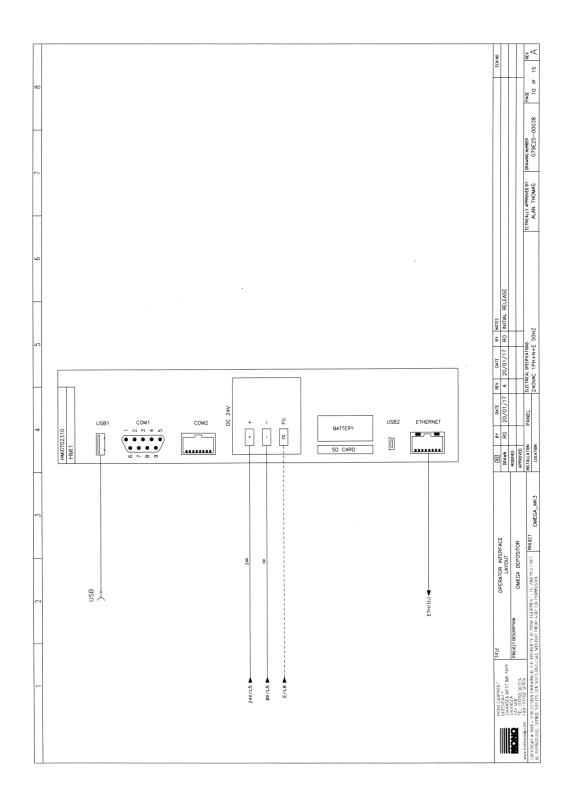


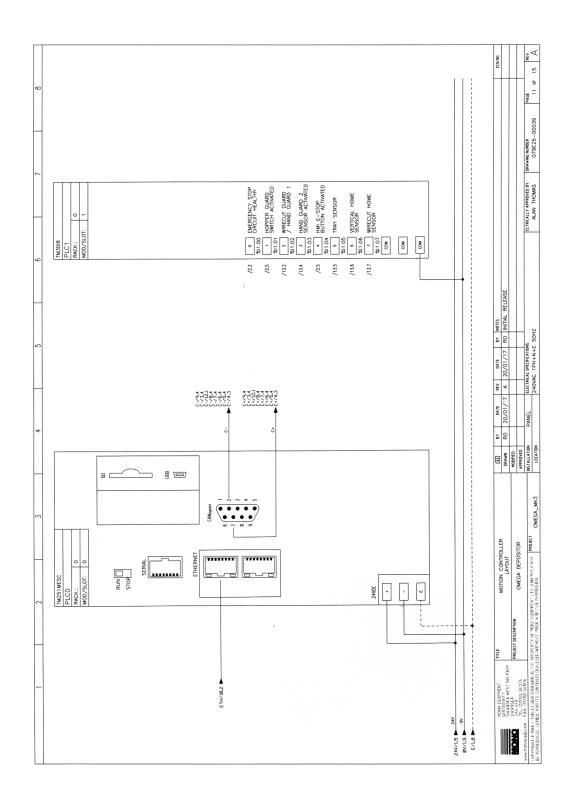


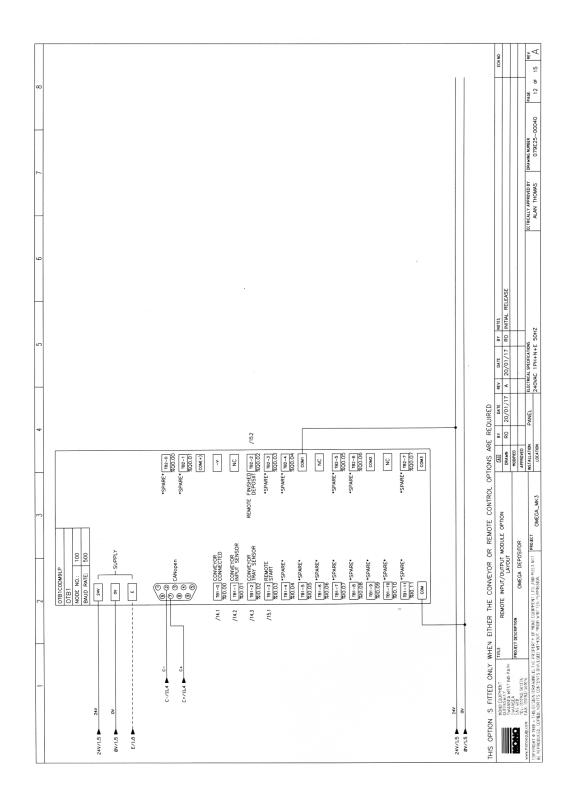


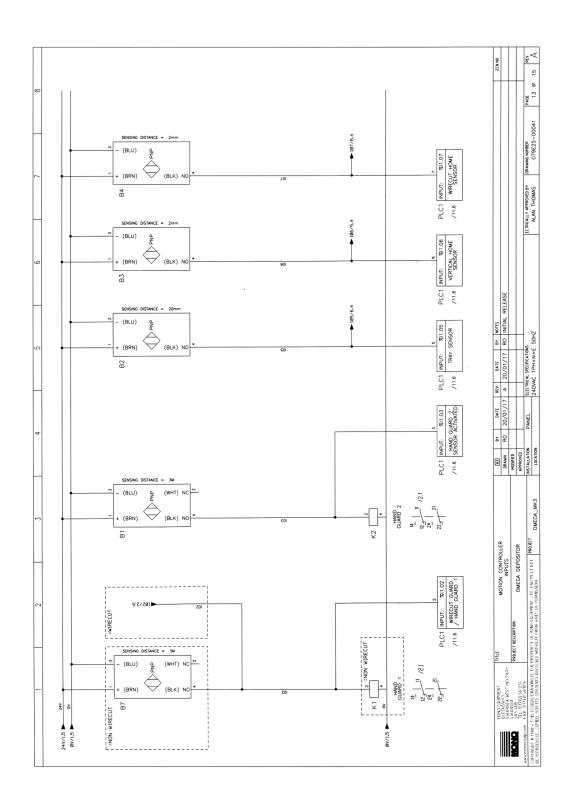


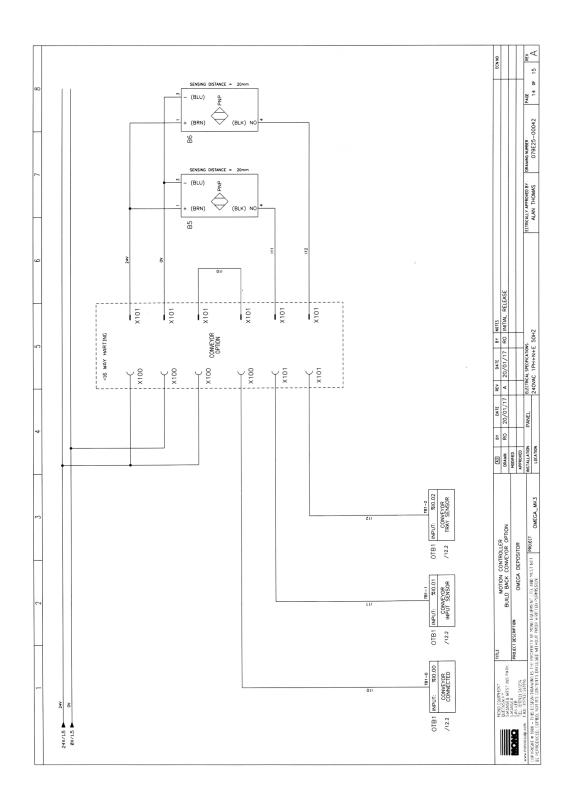


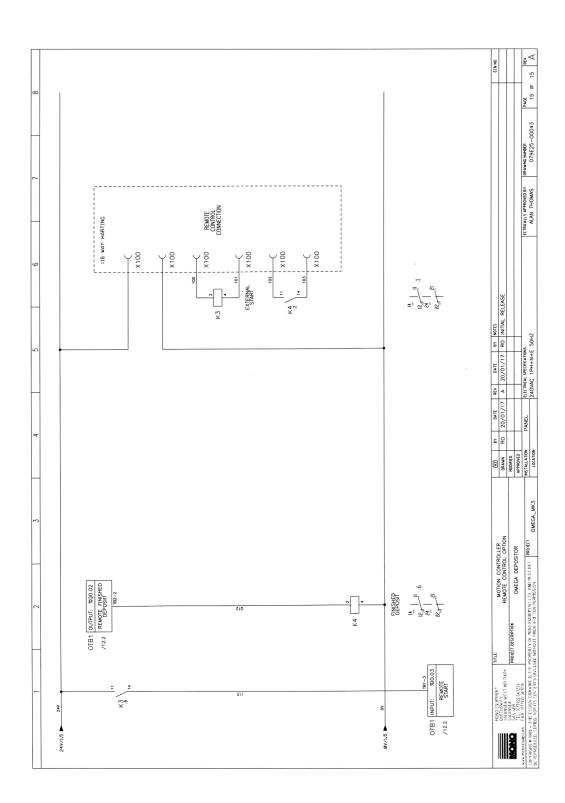












#### OMEGA TLCC/LMC TO M251 CONVERSION KITS

(Converts older machines to latest specification controller and screen)

#### M079-KSE009 OMEGA DEPOSITOR TLCC TO M251 CONVERSION KIT

Comprises of:

078-25-00051 CONVERSION BRACKET & FIXINGS (manufactured)

M079-KSE006 TLCC TO M251 CONVERSION (HAC Ref: H300-001-0063)

H200-004-038 Omega depositor MK3 M251 controller

H200-005-011 Omega depositor MK3 HMI

H200-007-010 Ethernet cat 6 patch cable 1.5m

H200-100-060 Omega TLCC to M251 IO and power loom H200-007-011 Omega TLCC to M251 canopen comms cable.

H100-007-012 TM3 expansion module 8 input 24V DC

H200-003-073 USB stick blank FAT32

TS35 DIN Rail for mounting M251 (TLCC 90mm)

Also to include instructions - M251 Conversion procedure (TLCC)

#### M079-KSE007 OMEGA DEPOSITOR LMC (GT) TO M251 CONVERSION KIT

HAC Ref: H300-001-0064

Comprises of:

H200-004-038 Omega depositor MK3 M251 controller

H200-005-011 Omega depositor MK3 HMI

H200-007-010 Ethernet cat 6 patch cable 1.5m

H200-100-061 Omega LMC to M251 IO and power loom

H200-007-012 Omega LMC to M251 canopen comms cable.

H100-007-012 TM3 expansion module 8 input 24V DC

H200-003-073 USB stick blank FAT32

TS35 DIN Rail for mounting M251 (LMC 410mm)

Also to include instructions - M251 Conversion procedure (LMC)

#### M079-KSE008 OMEGA DEPOSITOR LMC (GTO) TO M251 CONVERSION KIT

HAC Ref: H300-001-0065

Comprises of:

H200-004-038 Omega depositor MK3 M251 controller

H200-003-064 Omega depositor MK3 HMI USB stick 4.3.0.0.A

H200-007-010 Ethernet cat 6 patch cable 1.5m

H200-100-061 Omega LMC to M251 IO and power loom

H200-007-012 Omega LMC to M251 canopen comms cable.

H100-007-012 TM3 expansion module 8 input 24V DC

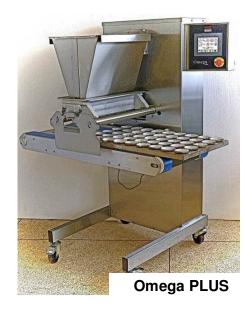
H200-003-073 USB stick blank FAT32

TS35 DIN Rail for mounting M251 (LMC 410mm)

Also to include instructions - M251 Conversion procedure (LMC)

#### The equipment mentioned in this manual has CE accreditation.

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







Queensway, Swansea West Industrial Estate, Swansea. SA5 4EB UK **Tel. +44(0)1792 561234** Spares Tel. +44(0)1792 564039 Fax. 01792 561016

Email:marketing@monoequip.com

Web site:www.monoequip.com

#### 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 recycling or other means as the law permits at the time.