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Enter **Serial No.** here. \_\_\_\_\_

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

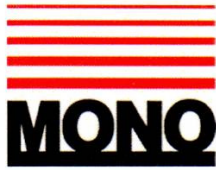


# **Epsilon** colour

## **OPERATING AND MAINTENANCE MANUAL**

NOTE: THIS MACHINE IS FOR USE WITH SOFT DOUGH ONLY


**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 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  
EN55014-2:1997+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
- Good manufacturing practice for materials intended to come into contact with food – Regulation (EC) No.2023/2006

<b>Signed</b>	
<b>G.A.Williams – Quality Manager</b>	

<b>Date</b>	
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<b>Machine FG Code.</b>		<b>Machine Serial No.</b>	
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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 9, 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.**



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

FOR SAFE WORKING, PAY SPECIAL ATTENTION TO ITEMS MARKED



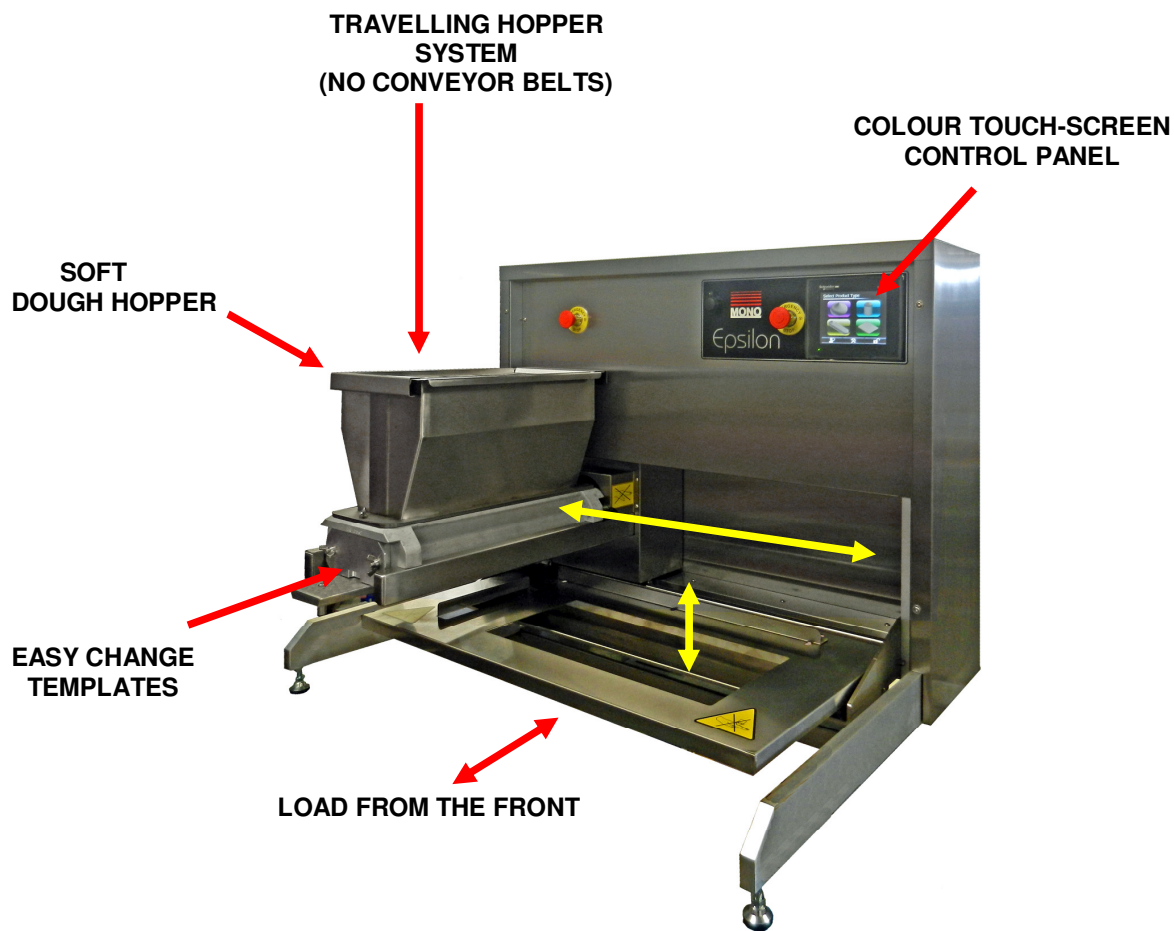
- 1.0 - INTRODUCTION
- 2.0 - DIMENSIONS
- 3.0 - SPECIFICATIONS
- 4.0 - SAFETY 
- 5.0 - INSTALLATION
- 6.0 - ISOLATION
- 7.0 - CLEANING INSTRUCTIONS
- 8.0 - OPERATING CONDITIONS
- 9.0 - PREPARING FOR OPERATION**
  - 9A – FITTING THE HOPPER***
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- 10.0 - OPERATING INSTRUCTIONS**
  - 1 – SELECT PRODUCT TYPE**
  - 2 – USE SAVED PRODUCT PROGRAM**
  - 3 – EDIT/CREATE A PROGRAM. DROP / TOWER / STRIP / SHEETING**
  - 4 – PASSWORDS**
  - 5 – ENGINEERING SETTINGS**
  - 6 – FAULT INFORMATION SCREENS**
- 11.0 - MAINTENANCE
- 12.0 - SPARES AND SERVICE
- 13.0 - SPARES LIST
- 14.0 - ELECTRICAL INFORMATION



# 1.0 INTRODUCTION

**EPSILON**

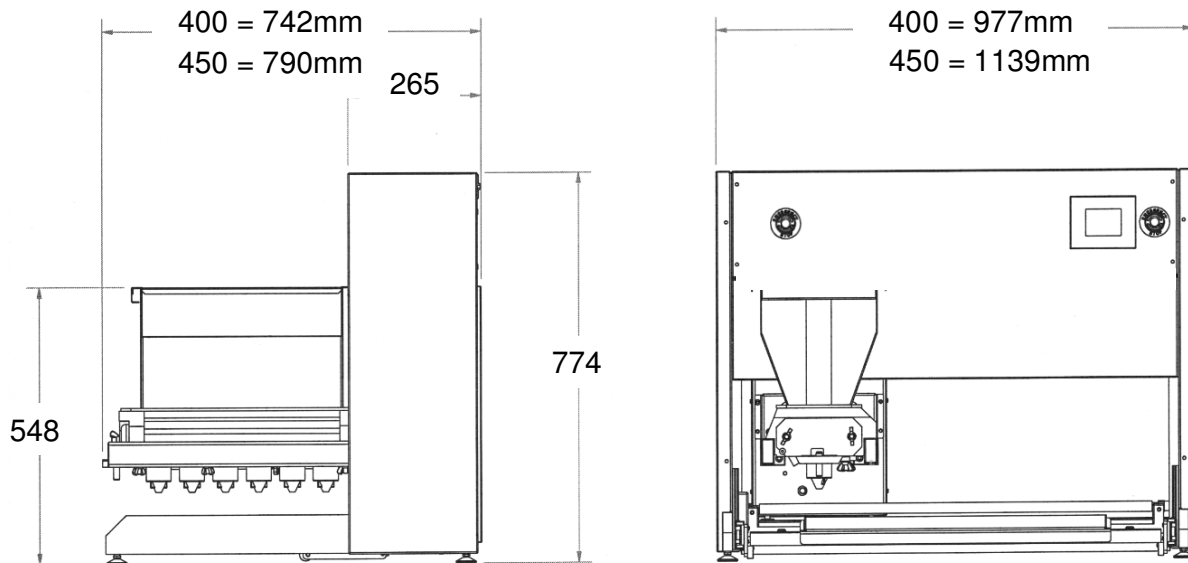
- The ground breaking **EPSILON** tabletop confectionary depositor requires less than 1 square metre of space to operate.
- The unique travelling hopper system removes the need for a conveyor belt which means trays can be loaded and unloaded in the most ergonomically efficient way – directly from the front.
- The **EPSILON** can be transported through a normal doorway and plugged into a standard 13amp socket.
- Control is by a user friendly colour touch-screen (in 14 languages) and can be used to store up to 96 programs.
- Robust stainless steel construction for durability and ease of cleaning.
- A matching stainless steel table is also available to make the **EPSILON** freestanding.



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

# 2.0 DIMENSIONS

EPSILON



## 3.0 SPECIFICATIONS

EPSILON

### SOFT DOUGH

<b>MODEL</b> (Nom. hopper width (mm))	<b>400</b>	<b>450</b>
<b>Weight</b> (with hopper fitted):	<b>100kg</b>	<b>110kg</b>
<b>Standard hopper Capacity</b> (litre) :	<b>20</b>	<b>22.5</b>

**Power:** Single phase, 13A max load. Suitable for 110v,200v, 220v, 230v, and 240v, 50-60 Hz supply.

**MAX RATING** 2.5kW single phase fused at 13A

**Cycles per minute** = Depends on product.  
i.e. 5 across 30g drop = 16 per minute.

**Max program storage** = 96

**Number of languages** = 14

**Noise level** = Less than 85dB

**Electronics** = All microprocessor controlled

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### **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 your intended product falls outside the above general machine specification.

*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** should remove parts from this machine if a tool is required.
  - 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 Epsilon 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**.
  - 8 **No loose clothing or jewellery** should be worn while operating the machine.
  - 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 the hopper **template fitted correctly**.
  
- 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.



**CAUTION:**

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



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






## 5.0 INSTALLATION

EPSILON

- 1 Ensure that the depositor is connected to the 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 The support table should be level and strong enough to support the machine and loaded hopper.
- 4 This machine should be lifted by more than one person.

## 6.0 ISOLATION

 **IN AN EMERGENCY, SWITCH OFF AT THE MAINS WALL ISOLATOR (UNPLUG), OR PUSH ONE OF THE EMERGENCY STOP BUTTONS.**

*To release an emergency stop button, turn clockwise.*



# 7.0 CLEANING INSTRUCTIONS

EPSILON

## 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 (hose or pressure washer).

**-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.

## **DOUGH HOPPERS** **BETWEEN PRODUCT MIX CHANGES**

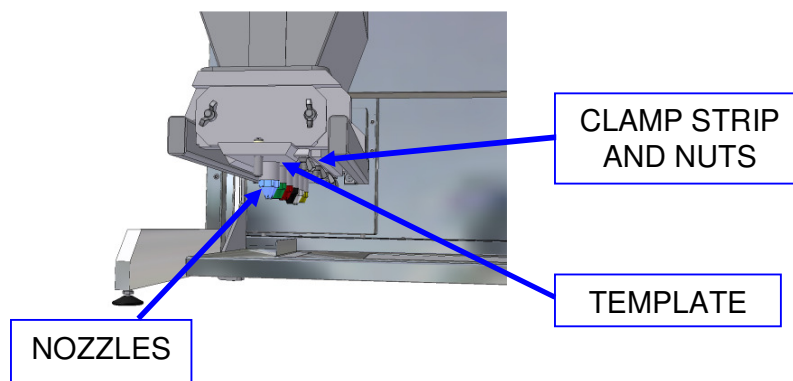
*The feed hopper, pump assembly, template, nozzles etc. should be removed from the machine and dismantled for thorough cleaning between product mix changes.*

1. Open top safety guard (lift front and unhook the back edge) and remove excess mixture remaining in the feed hopper.
2. Slacken template clamp strip nuts and remove fitted template from pump assembly by sliding out while supporting it to avoid damage.

## **NOTE.**

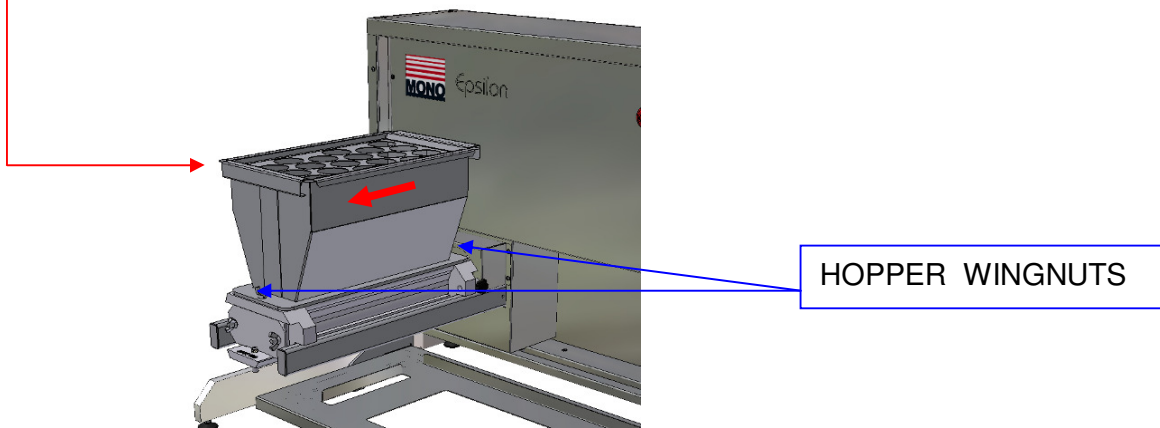
*Thumbscrews only need to be released slightly to allow the template to slide away from the pump assembly. If loosened too much, the template will have to be supported.*

### **DOUGH HOPPER**



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

*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 wing nuts are placed where they will not be lost.*

# DOUGH HOPPER

EPSILON

NOTE: THIS MACHINE IS FOR USE WITH SOFT DOUGH ONLY



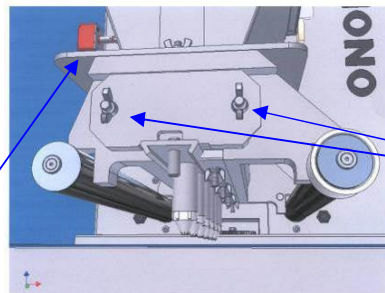
## CAUTION:

The feed hopper and pump assembly can exceed 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.*

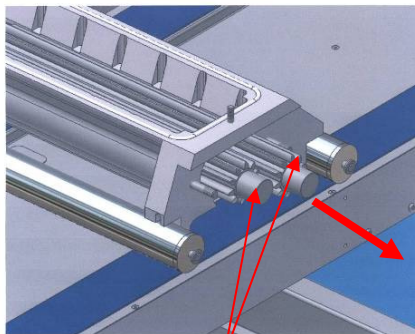
FEED HOPPER  
SEALING SURFACE



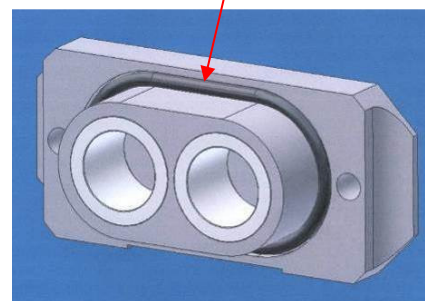
ENDCAP NUTS

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.*



PUMP GEARS  
REMOVE WITH END CAP  
(NOT SHOWN)



'O' RING IN GROOVE

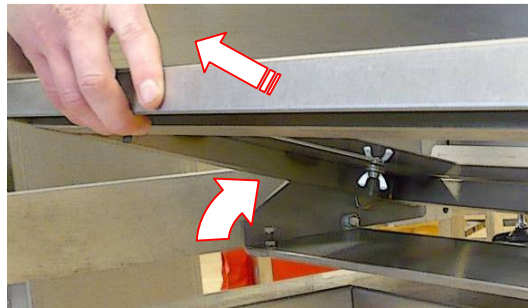
END CAP

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

PICTORIAL VIEWS SHOWN COULD BE DIFFERENT TO THE MACHINE BEING WORKED ON BUT THE INSTRUCTIONS ARE THE SAME FOR ALL MODELS.

To remove the table for cleaning:

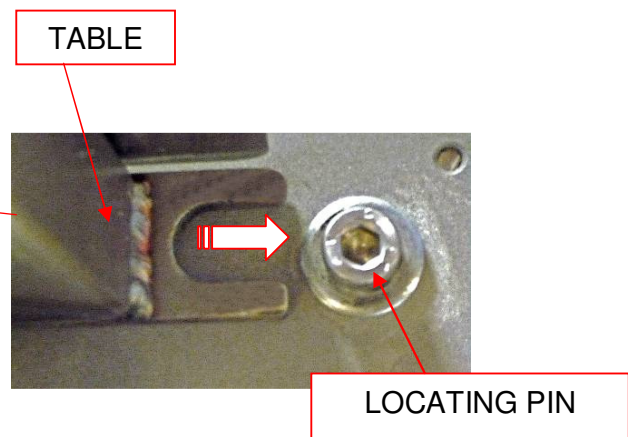
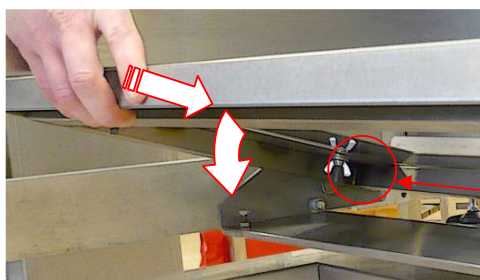
1. Push the table down to its lowest level.
2. Lift the front edge and lift the table towards you.  
The table will release from the back pins and can be placed in a washer for cleaning.



To replace the table after cleaning:

1. Hold table with the front edge raised and engage the slots over the pin on both sides.
2. Lower the table front edge.

When in the correct position the table will not slide forward.





## 8.0 OPERATING CONDITIONS

To obtain the best product results and consistent operation,

- ✓ Make sure the depositor is used on a **level surface**.  
(Adjust feet if required)
  
- ✓ Ensure **flat trays** are used.
  
- ✓ Ensure **undamaged** nozzles and templates are used.
  
- ✓ Keep the machine **clean**.
  
- ✓ Do not leave any components in the hopper.



## 9.0 PREPARING FOR OPERATION

EPSILON

NOTE: THIS MACHINE IS FOR USE WITH SOFT DOUGH ONLY

**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 required and fit as section 9a & 9b following.  
Check that nothing has been left or fallen in the hopper.  
Fill hopper with mix and close hopper guard.

*It is recommended that when heavy mixes are used, the inside of the hopper should be coated with vegetable oil and 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.*



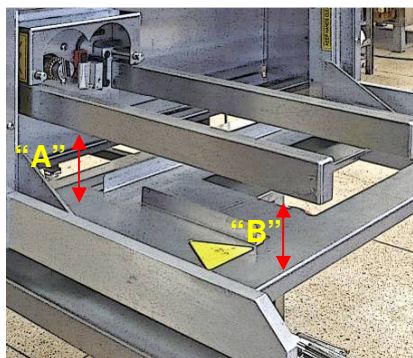
- 2 Connect power cable to the correct electrical supply.  
*Make sure stop buttons are in released position (turn clockwise if required).*
- 3 Select an existing program or create a new program through the on-screen menus.  
(see section 10 operation)
- 4 The machine is now ready for operation.

## TABLE ADJUSTMENTS

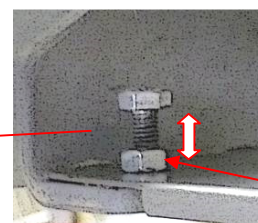
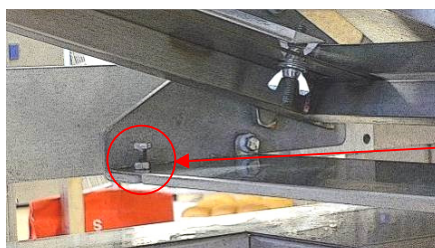
EPSILON

It is important that the table is parallel with the hopper.  
(If this is not correct the nozzles will not be the same distance from the trays and the deposits will differ across the tray).

Measure the distance at "A" and "B" below and check that they are the same.  
This should be checked with the hopper bars positioned at both the full left position and the full right position.



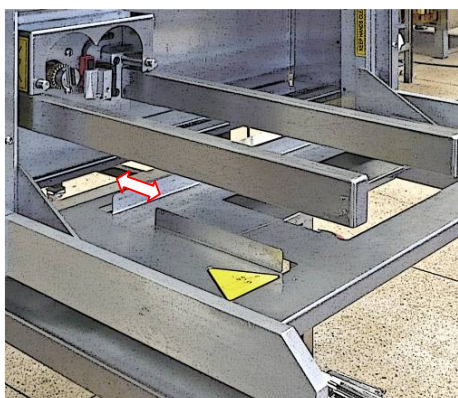
If not the same, an adjustment can be made by raising or lowering the adjusters under the table. There is one each side to allow the table to be adjusted evenly.



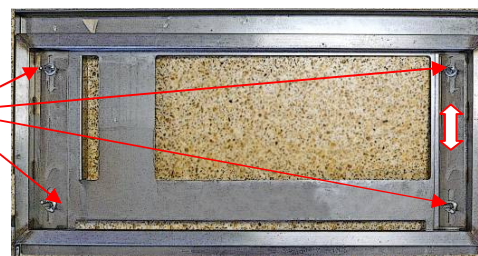
Lift the front edge of the table and, with a suitable spanner, release the locking nut. Screw the adjuster bolt up or down and then lock it in position with the locking nut.

## TRAY GUIDE ADJUSTMENT

This allows different width trays to be accommodated. To adjust the position of the back guide, remove the table and turn it over. Loosen the thumb nuts and slide the sheet across to the desired position. Tighten the nuts and replace the table.



NUTS

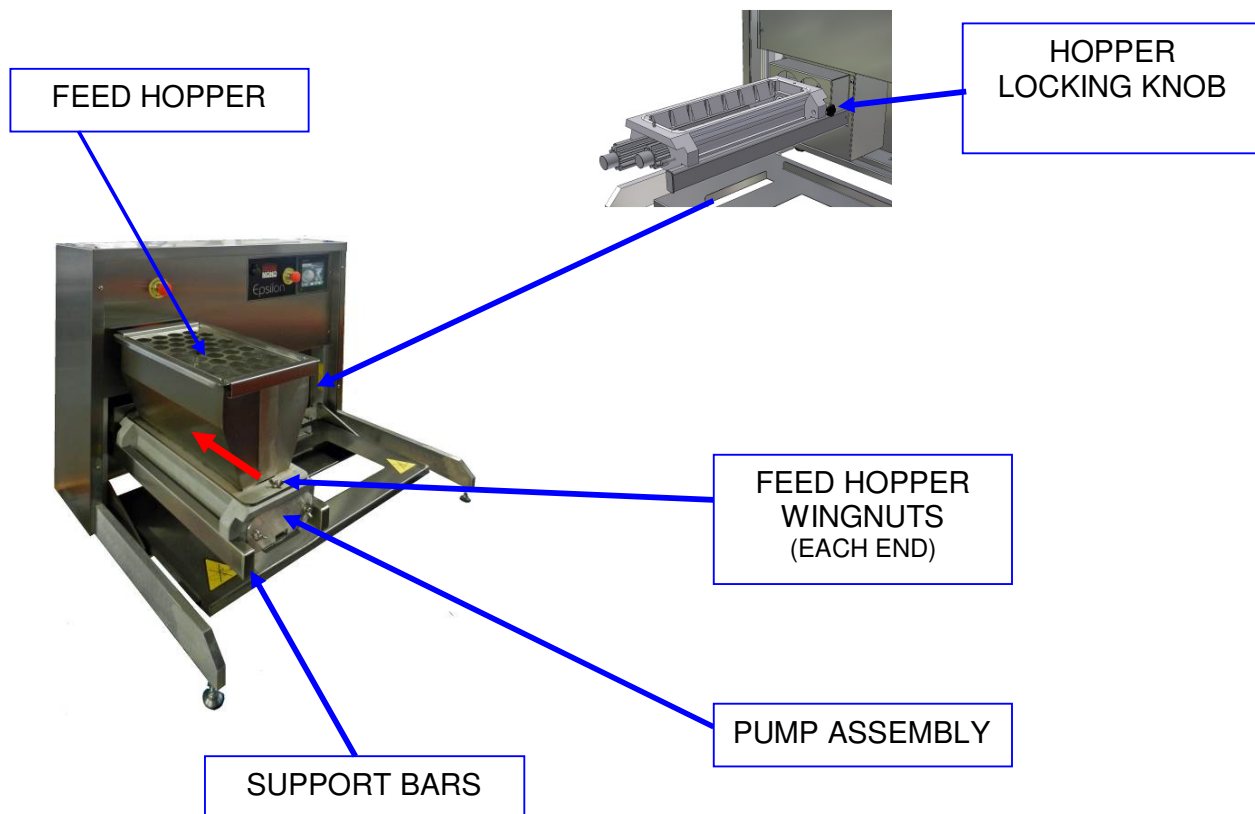


## 9a FITTING THE HOPPER

**CAUTION SHOULD BE TAKEN WHEN FITTING HOPPER AND PUMP ASSEMBLY AS WEIGHT EXCEEDS 25KGS ON SOME MODELS**  
 It will need to be lifted off by two people, or dismantled into smaller components while still on the machine.  
**MAKE SURE FLOOR AREA AROUND 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.

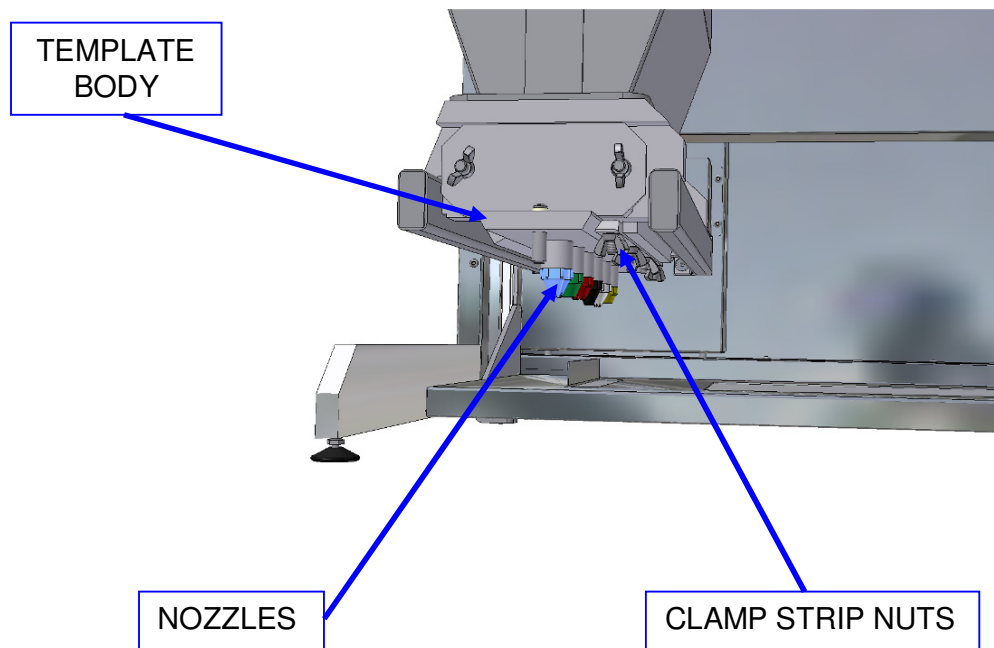
- 1 By hand, align pump assembly drive gear roller with drive shaft on machine.
- 2 Fit hopper to pump assembly and secure with wing nuts.
- 3 Slide hopper on support bars until fully up against machine.
- 4 Screw hopper locking knob hand tight.



**DO NOT OPERATE MACHINE WITHOUT TEMPLATE FITTED**

## 9b FITTING A TEMPLATE

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



- 3 Slide template into matching recess at base of pump assembly until the stop is in position.
- 4 Tighten nuts on 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.*

**DO NOT OPERATE MACHINE WITHOUT TEMPLATE FITTED**



# 10.0 'Epsilon' OPERATION

EPSILON



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

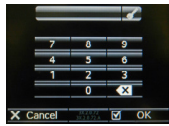
## FOR FOLLOWING INSTRUCTIONS

**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

# SELECT PRODUCT TYPE

SELECT PRODUCT TO DEPOSIT OR TO CREATE NEW PROGRAM

PART  
**10/1**

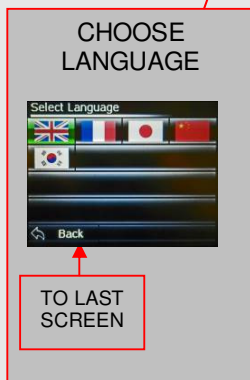
1. Touch anywhere on the first screen to start.



2. Touch the screen for the type of product required.  
Display will move on to the next screen.



THESE BUTTONS  
CONTROL CHANGES  
TO THE MACHINE

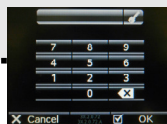


MACHINE SETUP

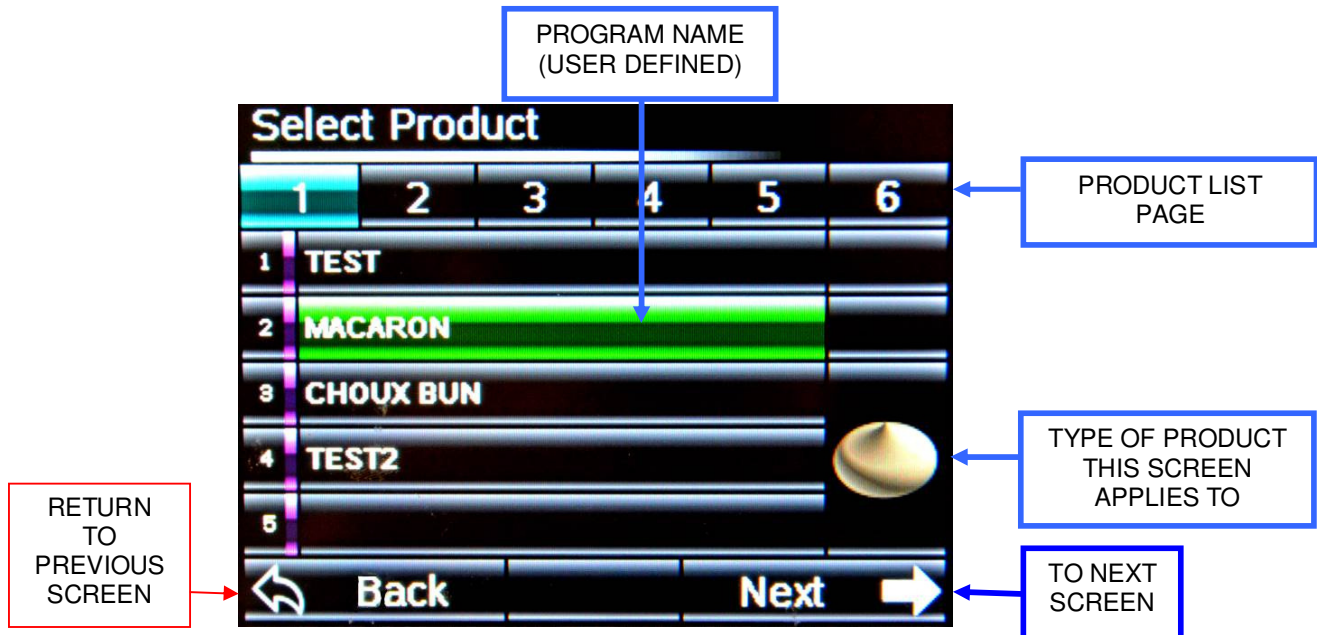
PRODUCT  
EDITING  
COPYING  
DELETING

PASSWORDS ARE REQUIRED FOR THESE  
FUNCTIONS. SEE PART

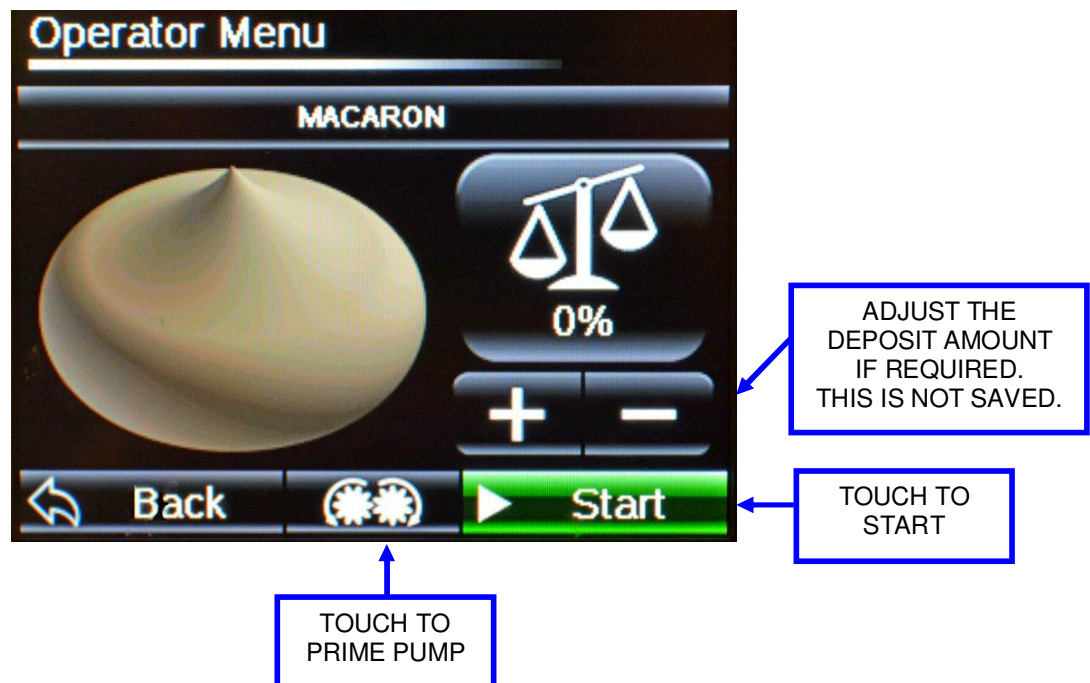
**10/4**



1. Select the product required from the list.



2. Touch "next" to go to next screen.





3. Place tray under nozzles and touch prime button until deposit is even.  
(touch continuously to operate).
4. Place a clean tray under nozzles and touch start. Touch stop at any time to stop depositing and return hopper to start position.





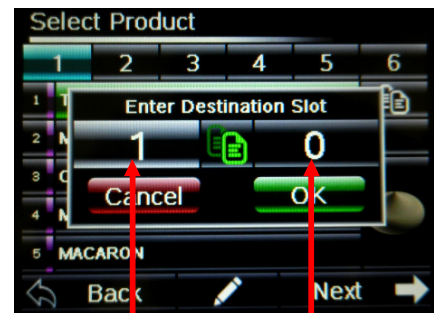
EDIT BUTTON

1. Touch the edit button.
2. Enter password.  Touch ok. (Screen shows  )
3. Select the product type on screen. (drop, tower, strip, sheeting)
4. Select the product



EDIT BUTTON

TO EDIT EXISTING PROGRAM SETTINGS FOR A NEW PRODUCT, COPY PRODUCT TO NEW LOCATION FOR EDITING



FROM SLOT NUMBER

TO NEW SLOT NUMBER

5. Touch the edit button.

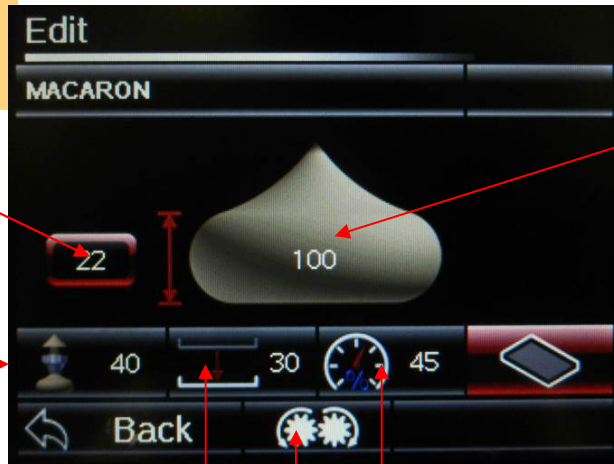


**EXAMPLE EDIT:**

**DROP**

**NOZZLE HEIGHT**  
ABOVE TRAY  
SURFACE

**SUCK BACK**  
QUANTITY



**PRODUCT QUANTITY**  
THIS IS A SETTING NUMBER AND  
DOES NOT INDICATE A MEASURE OF  
ACTUAL VOLUME

**ENTER TRAY  
SETUP  
SCREEN  
(SEE 6 BELOW)**

**TABLE  
JOG DISTANCE (mm)**

**OVERALL  
MACHINE SPEED  
(% OF MAXIMUM)**

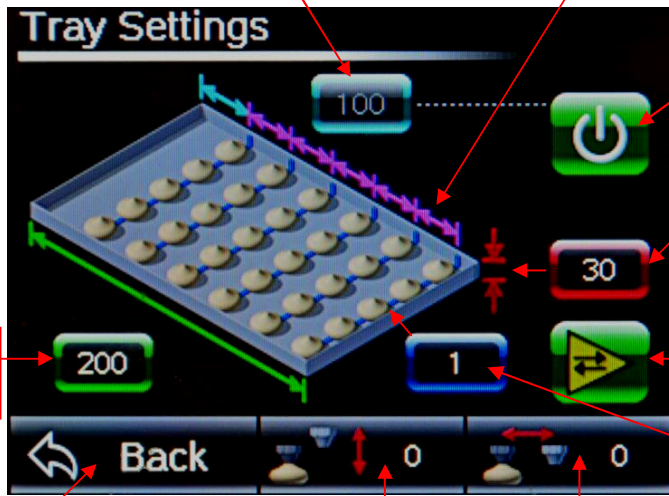
**PRIME PUMP**

5. Touch each adjustment required and make changes with the keyboard that appears.

6. The tray setting brings up another screen as below.

**DISTANCE (mm) TO 1<sup>ST</sup> ROW ON TRAY**

**DISTANCE (mm) BETWEEN ROWS  
(WHEN USING MANUAL OVER-RIDE)**



**MANUAL OVER-RIDE FOR  
ROW SPACING  
ON/OFF**

**TRAY EDGE  
HEIGHT (mm)**

**DEPOSIT  
DIRECTION**  
TOGGLES BETWEEN  
TWO WAY (DEFAULT) OR  
ONE WAY

**NUMBER OF ROWS  
TO BE DEPOSITED**

**TRAY LENGTH  
(mm)**

**TO PREVIOUS  
SCREEN**

**VERTICAL DISTANCE  
MOVED BY HOPPER AFTER  
DEPOSIT**

**HORIZONTAL DISTANCE  
MOVED BY HOPPER AFTER  
DEPOSIT**

**WIPE BACK**

**EXAMPLE EDIT:  
TOWER**



**DEPOSIT QUANTITY  
FOR EACH LAYER**

**NOZZLE HEIGHT (mm)  
FOR EACH LAYER**

**NOZZLE HEIGHT (mm)  
FROM TRAY SURFACE**

**SUCK BACK  
QUANTITY**

**TABLE  
JOG DISTANCE (mm)**

**OVERALL  
MACHINE SPEED  
(% OF MAXIMUM)**

**ENTER TRAY  
SETUP  
SCREEN  
(SEE 6 PREVIOUS PAGE)**

**PRIME PUMP**



**EXAMPLE EDIT:  
STRIP**



**DEPOSIT QUANTITY  
FOR BEGINNING OF  
PRODUCT**

**DEPOSIT QUANTITY  
FOR LENGTH**

**DEPOSIT QUANTITY  
FOR END OF  
PRODUCT  
(-VE VALUES POSSIBLE)**

**NOZZLE HEIGHT  
ABOVE TRAY  
SURFACE**

**LENGTH (mm) OF  
DEPOSIT**

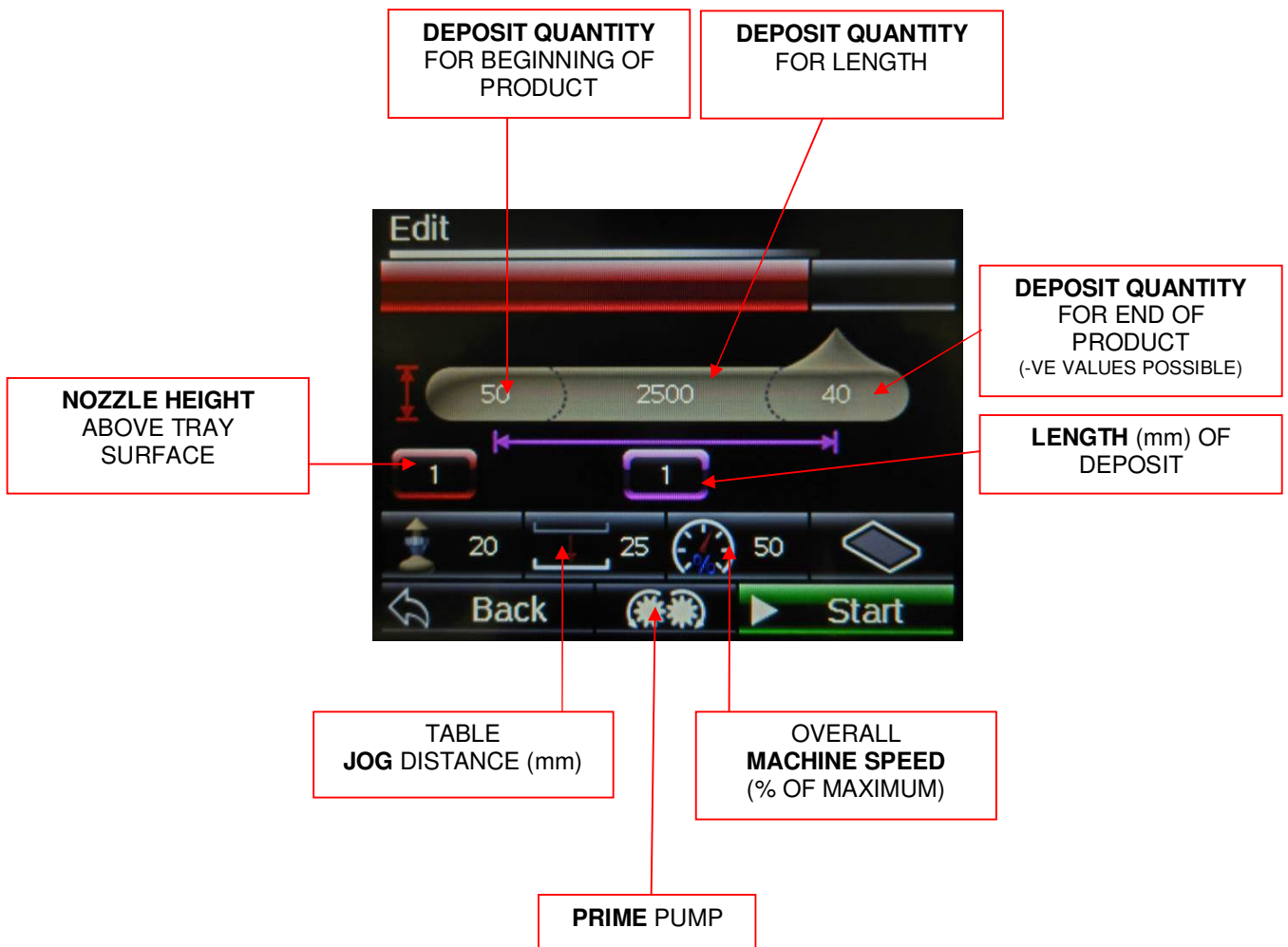


**TABLE  
JOG DISTANCE (mm)**

**OVERALL  
MACHINE SPEED  
(% OF MAXIMUM)**

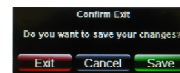
**PRIME PUMP**


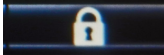
**EXAMPLE EDIT:  
SHEETING**



7. Make adjustments and touch back.

8. Touch back again and confirm exit screen appears.  
*Exit, cancel or save as required.*



9. When finished, touch  and it will change to   
(This will password lock the settings)

# PASSWORDS

PART  
**10/4**

## SUGGESTION

To stop unauthorised changes to the Epsilon 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.

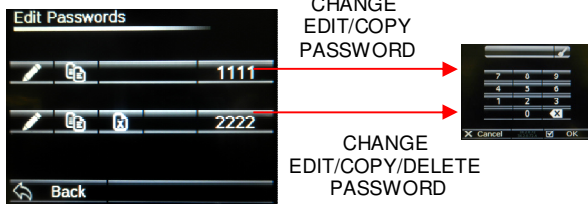
## CAUTION

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

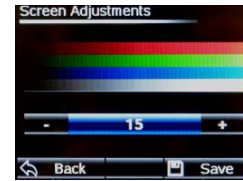


<b>1111</b>	<b>2222</b>
EDIT/COPY	EDIT/COPY DELETE

### 654321 – CHANGE PASSCODE



### 1234 – SCREEN ADJUSTMENT



THIS SECTION IS FOR TRAINED ENGINEERS ONLY

### 3142 -- ENGINEERING SETTINGS



### 2808 -- DIAGNOSTICS



### 777460--RESET FACTORY DEFAULTS

ONLY USE THIS IF INSTRUCTED TO DO SO.






# ENGINEERING SETTINGS (1)

PART  
**10/5**<sub>/1</sub>

THIS SECTION IS FOR TRAINED ENGINEERS ONLY

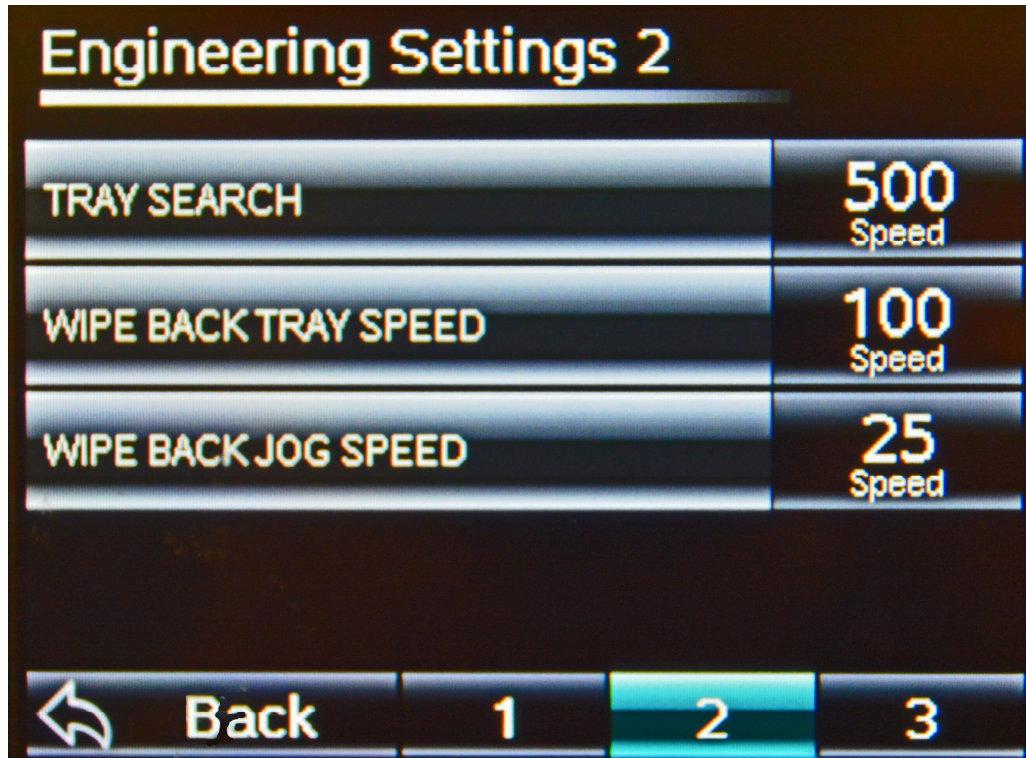
Engineering Settings 1			
DEFAULT PUMP	700 Speed	3000 Acceleration	
DEFAULT JOG	450 Speed	3000 Acceleration	
DEFAULT TRAY	400 Speed	3000 Acceleration	
PRIME PUMP	500 Speed		
 Back	1	2	3

## **CAUTION**

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



THIS SECTION IS FOR TRAINED ENGINEERS ONLY



## **CAUTION**

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

THIS SECTION IS FOR TRAINED ENGINEERS ONLY

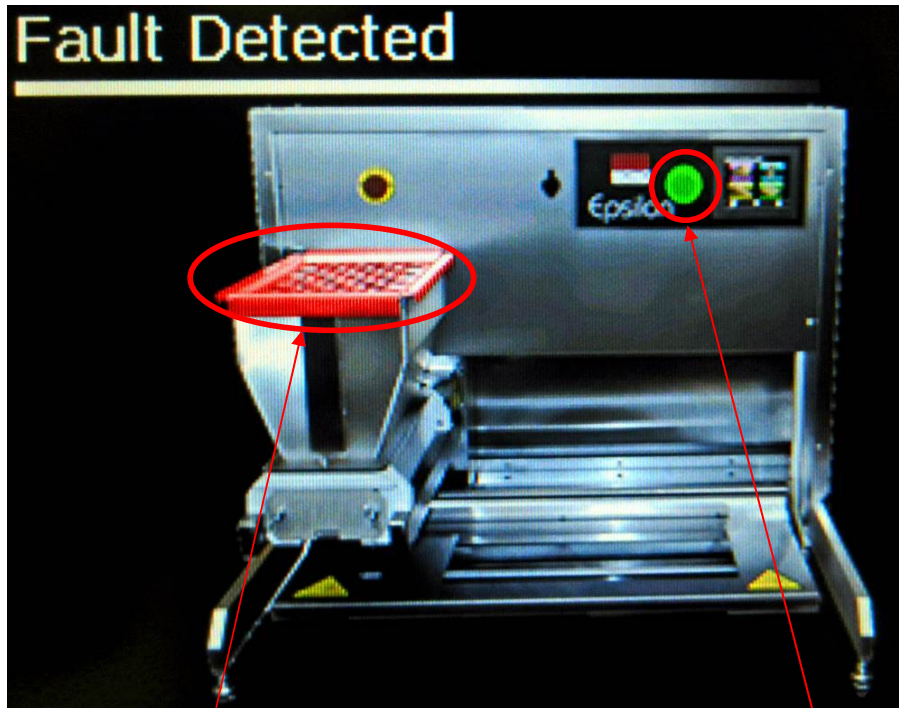
## GEARBOX RATIOS

The screenshot shows a control panel interface titled "Engineering Settings 3". It features three rows of settings, each with a label on the left and a ratio on the right. At the bottom, there is a navigation bar with a back arrow, the word "Back", and three numbered buttons (1, 2, 3). The button "3" is highlighted in blue.

Setting	Ratio
PUMP GEARBOX RATIO	28:1
TRAY GEARBOX RATIO	36:1
JOG GEARBOX RATIO	925:100

### **CAUTION**

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




HOPPER COVER

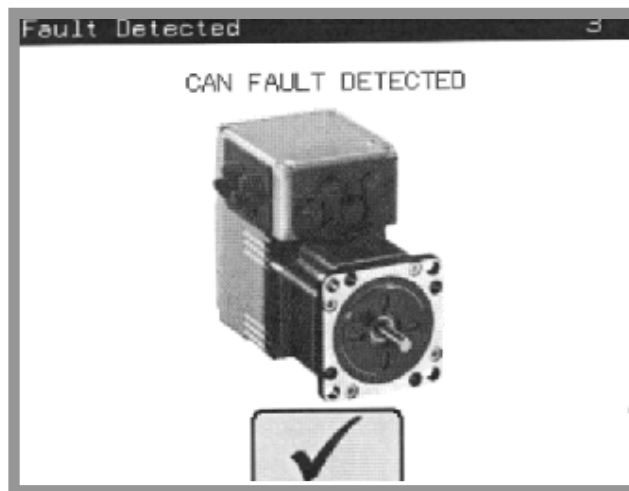
STOP BUTTON

**THIS SCREEN INDICATES A FAULT CONDITION IN THE SAFETY AREAS.**

WHEN **RED**, CLOSE COVER, RESET STOP BUTTONS OR CLEAR OBSTRUCTIONS TO CLEAR FAULT.

WHEN SCREEN CLEARS, FAULT HAS BEEN CORRECTED.

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



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

# 11.0 MAINTENANCE

EPSILON

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.**



## 12.0 SPARES AND SERVICE

EPSILON

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](mailto:spares@monoequip.com)**  
**SPARES TEL. +44(0)1792 564039**

**Web site: [www.monoequip.com](http://www.monoequip.com)**  
**Tel. 01792 561234**  
Fax. 01792 561016

EPSILON

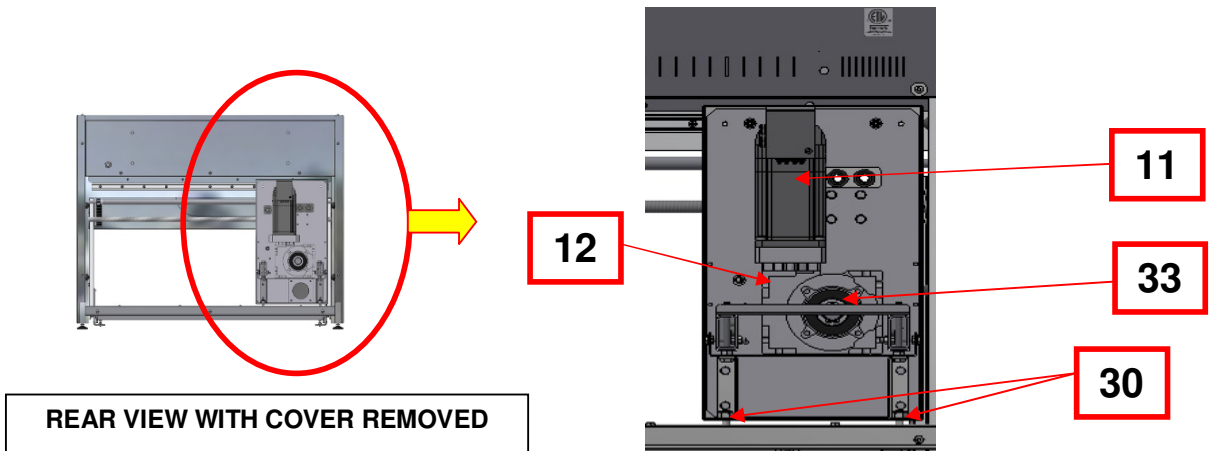
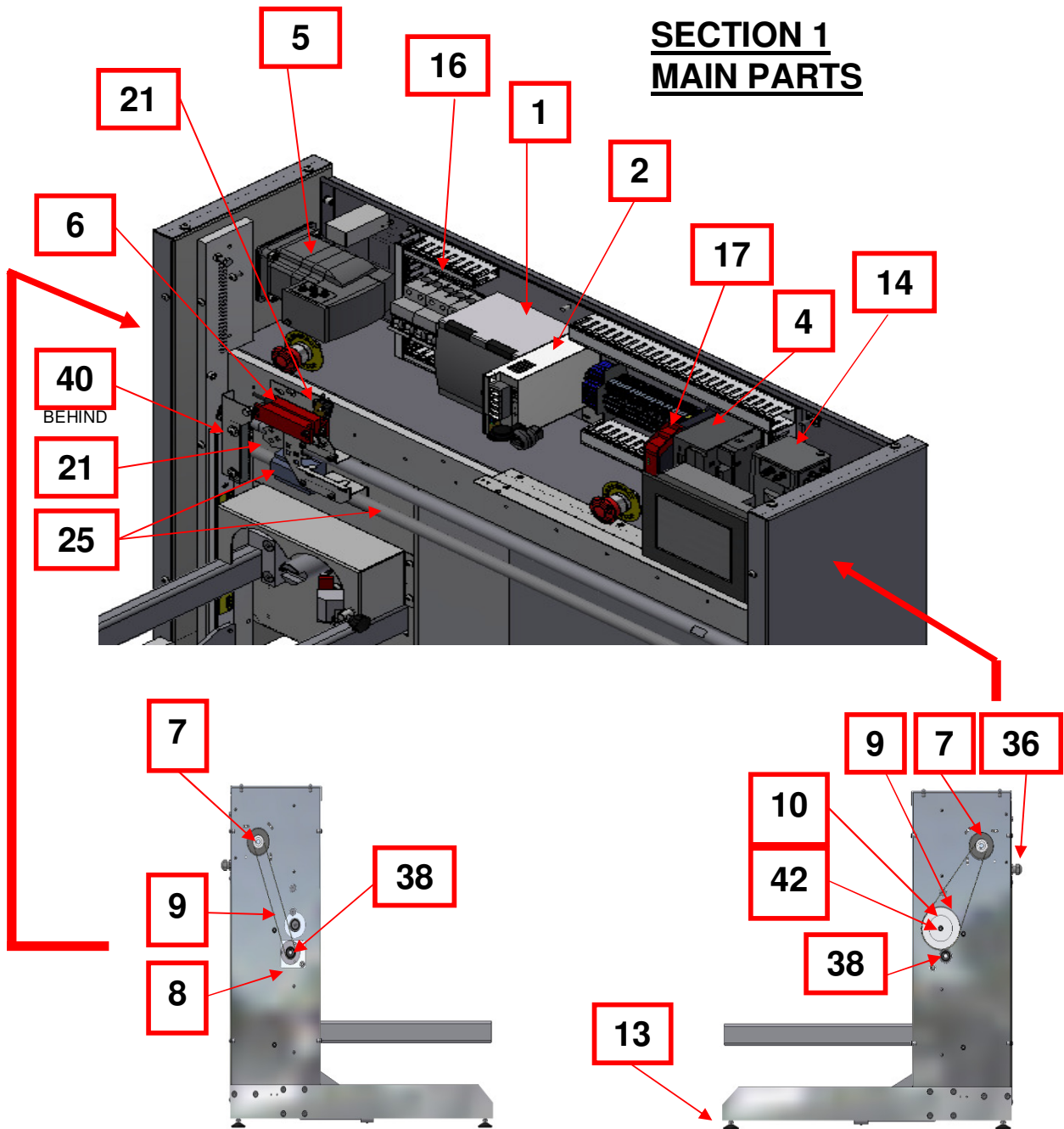


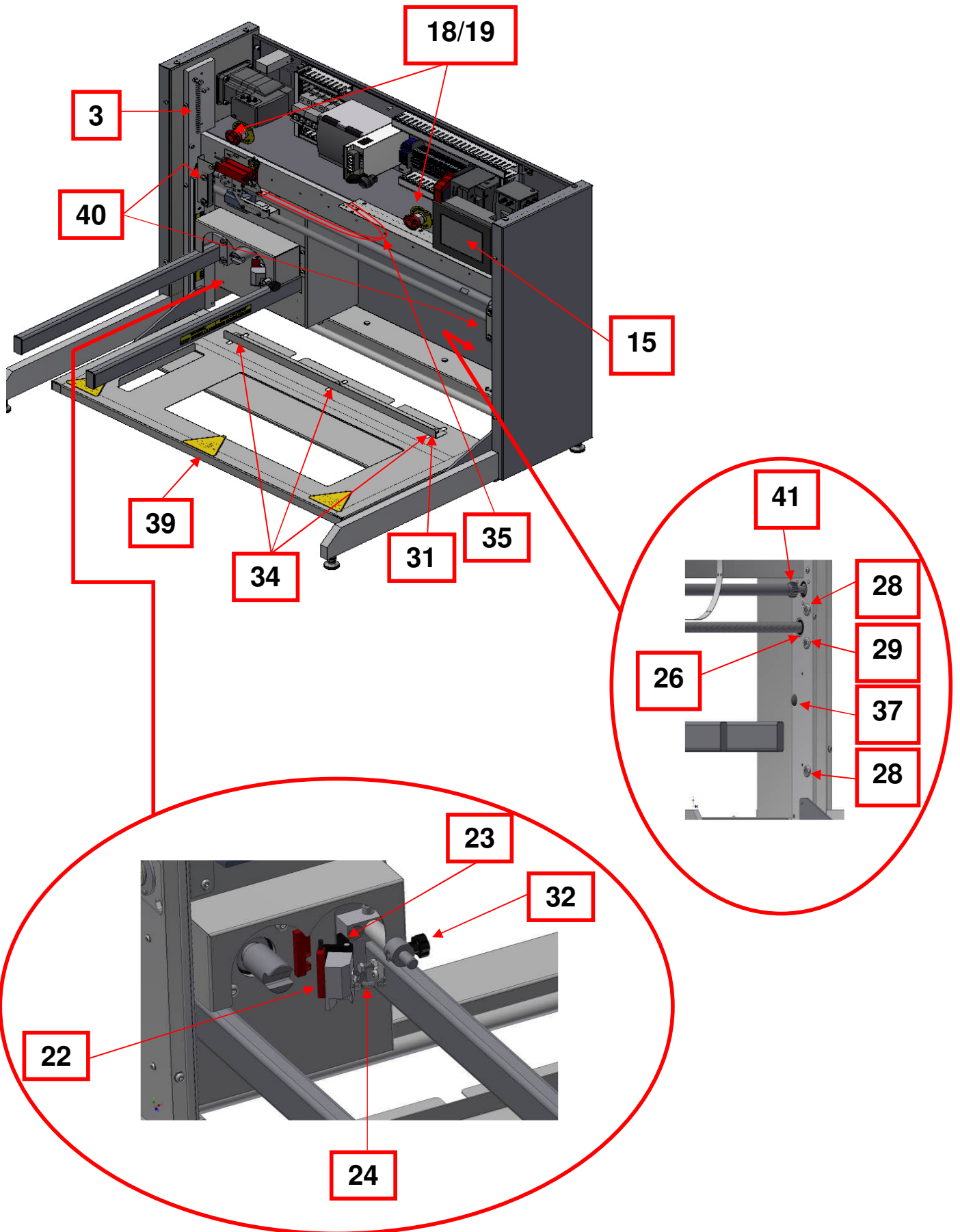


## 13.0 SPARES

# EPSILON

# SECTION 1 MAIN PARTS





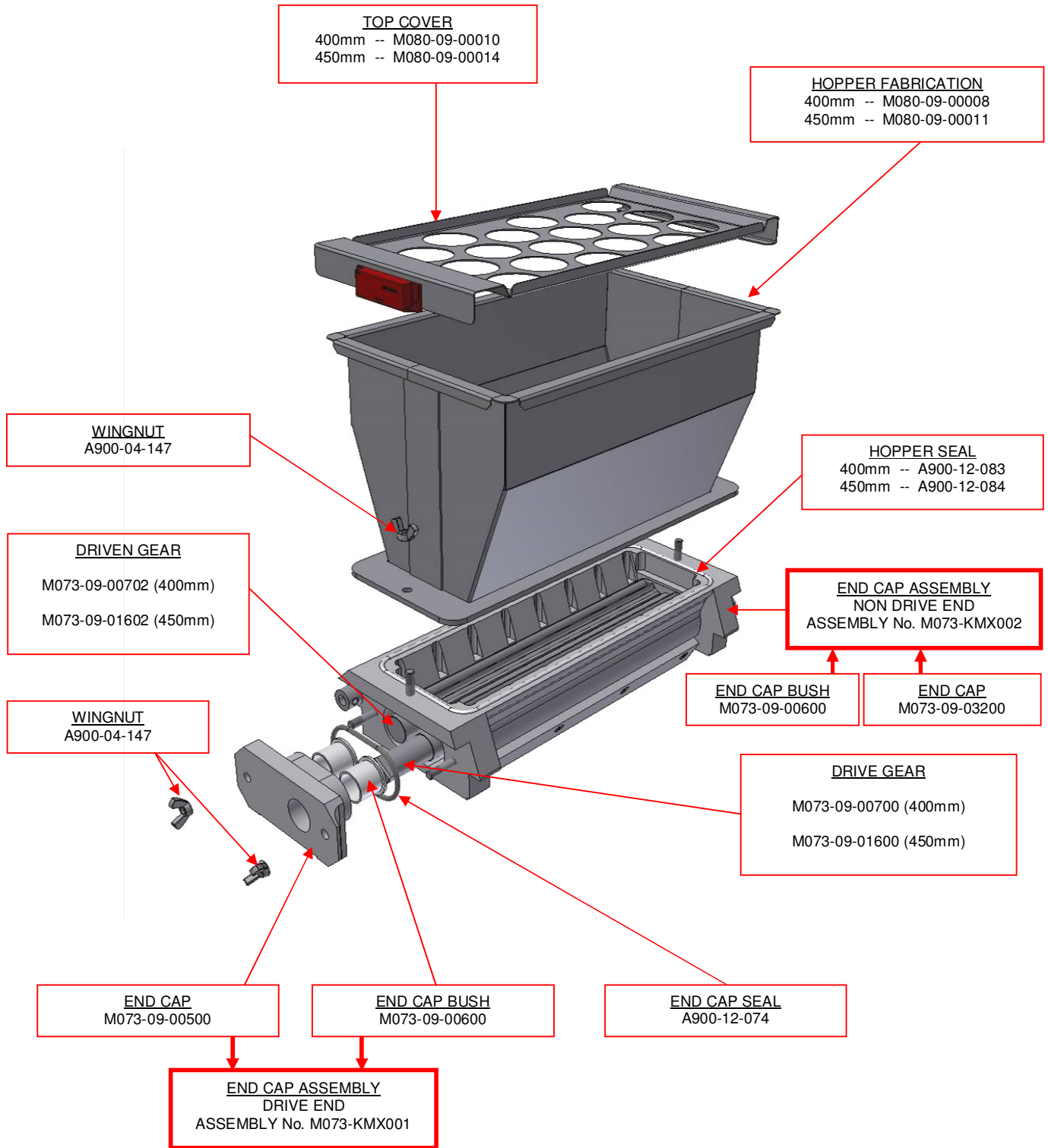
PARTS LIST FOR ITEMS ON PREVIOUS PAGES

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1.	POWER SUPPLY	B801-93-019
2.	POWER SUPPLY	B801-93-005
3.	TRAY SPRING	A900-19-097
4.	LMC20	ENQUIRE FOR LATEST NUMBER
5.	TRAY MOTOR	B781-74-007
6.	SAFETY SWITCH	B801-07-005
7.	TIMING PULLEY	080-02-00026
8.	TIMING PULLEY	080-02-00020
9.	TIMING BELT	A900-21-107
10.	TIMING PULLEY	080-02-00021
11.	DEPOSIT MOTOR	B781-74-008
12.	GEARBOX	A900-11-095
13.	ADJUSTABLE FOOT	A900-27-227
14.	JOG MOTOR	B781-74-006
15.	HMI	ENQUIRE FOR LATEST NUMBER
16.	CIRCUIT BREAKER	B872-22-003
17.	E-STOP RELAY	B801-11-019
18.	STOP BUTTON	B801-12-043
19.	CONTACT BLOCK	B801-14-008 (N/C), B801-14-004 (N/O)
20.	JOG SWITCH	B842-07-029
21.	TRAY SWITCH	B842-07-03

<b>22.</b>	TEMPLATE SAFETY SWITCH/MAGNET	B801-07-006
<b>23.</b>	HINGE FOR TEMPLATE SAFETY MAGNET	A900-27-217
<b>24.</b>	RETURN SPRING	A900-19-094
<b>25.</b>	BALLSCREW + NUT	080-02-00025 (400 model) 080-02-00048 (450 model)
<b>26.</b>	BEARING FOR BALLSCREW	A900-06-009
<b>27.</b>	VERTICAL SLIDES	A900-31-054
<b>28.</b>	V-ROLLER – CONCENTRIC	A900-06-297
<b>29.</b>	V-ROLLER – ECCENTRIC	A900-06-298
<b>30.</b>	TRACK ROLLER	A900-06-136
<b>31.</b>	TRAY BACK STOP	080-08-00015(450 model) 080-08-00016 (450 model)
<b>32.</b>	HOPPER LOCKING THUMSCREW	A900-27-213
<b>33.</b>	CIRCLIP – HOPPER DRIVESHAFT	A900-01-193
<b>34.</b>	WINGNUT FOR TRAY GUIDE	A900-04-043
<b>35.</b>	CABLE GUIDE STRAP	080-25-00006
<b>36.</b>	MAINS CABLE GLANDS	B900-17-002
<b>37.</b>	BUMP STOPS	A900-18-006
<b>38.</b>	CIRCLIPS – BALLSCREW	A900-01-112
<b>39.</b>	PLATFORM FABRICATION	080-08-00001 (400 model) 080-08-00011 (450 model)
<b>40.</b>	RACK	080-02-00032
<b>41.</b>	PINION	080-02-00032
<b>42.</b>	TRANS-TORQUE BUSH	A900-10-01

# SECTION 2

## DOUGH HOPPER PARTS



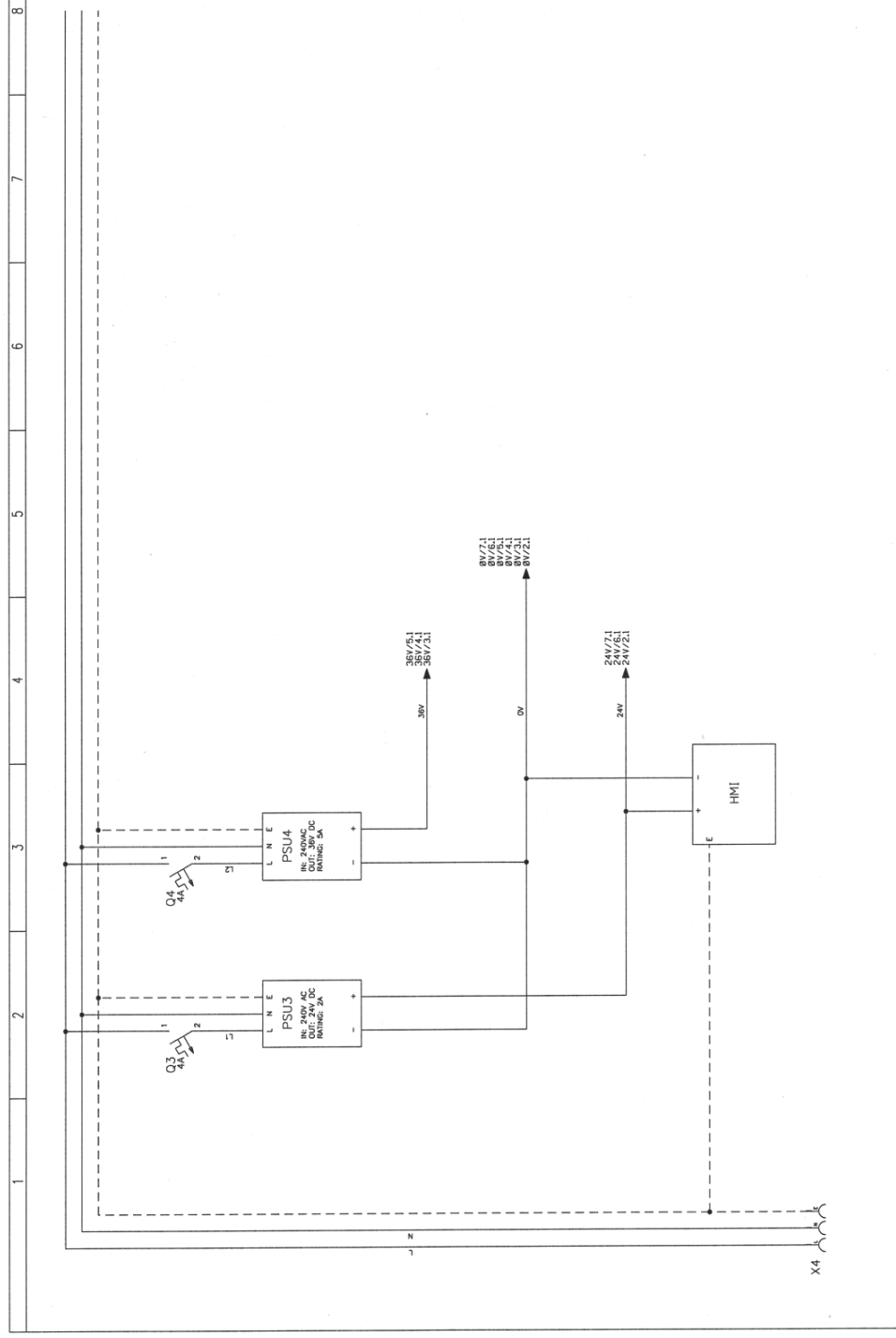




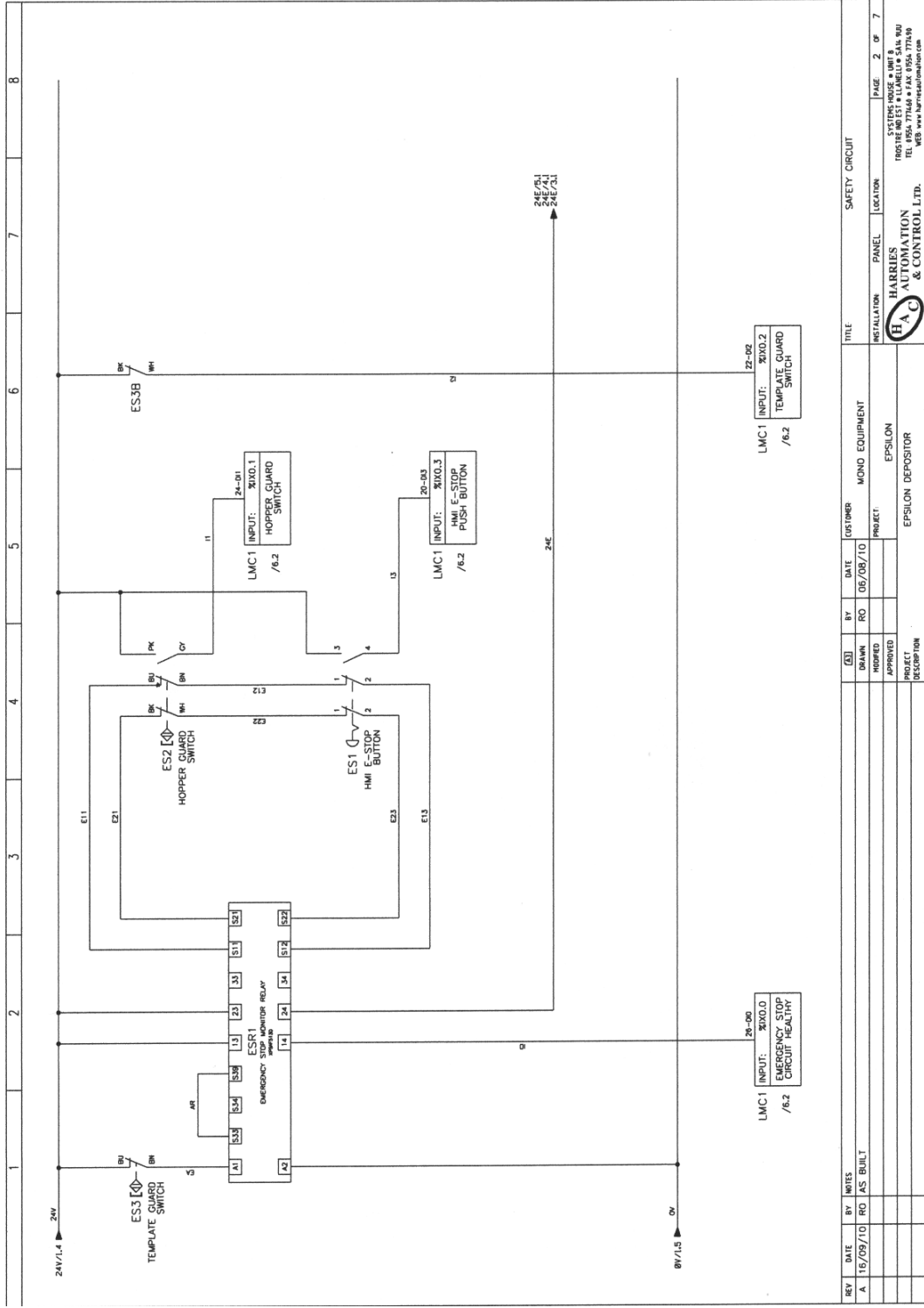
## **14.0 ELECTRICAL INFORMATION**

# **EPSILON**

**PLEASE CONTACT MONO FOR THE LATEST  
ELECTRICAL INFORMATION**



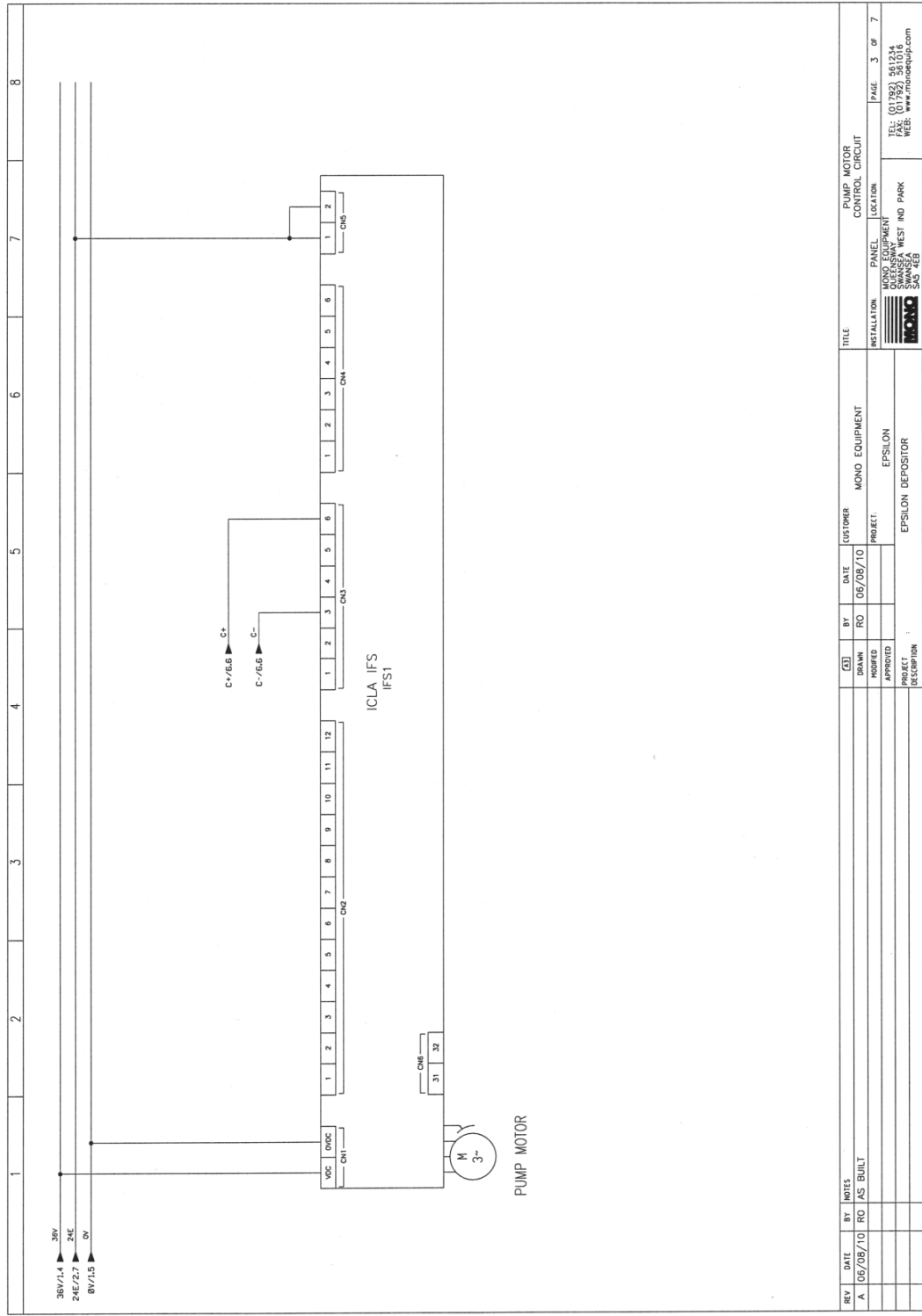
REV	DATE	BY	NOTES	DATE	BY	DATE	CUSTOMER	MOND EQUIPMENT	TITLE	PANEL	LOCATION	PAGE	OF
A	06/08/10	RO	AS BUILT	05/08/10	RO	05/08/10	EPSILON DEPOSITOR	EPSILON DEPOSITOR	ELECTRICAL DISTRIBUTION	0015	SWANSEA WEST IND PARK	1	7
										0015	SWANSEA WEST IND PARK		



REV	DATE	BY	NOTES	DATE	BY	RO	DATE	DATE	DESCRIPTION	TITLE	INSTALLATION	PANEL	LOCATION	PAGE	OF
A	16/09/10	AS	BUILT				06/08/10			MOND EQUIPMENT				2	7
										EPSILON					
										EPSILON DEPOSITOR					

HARRIES AUTOMATION & CONTROL LTD.

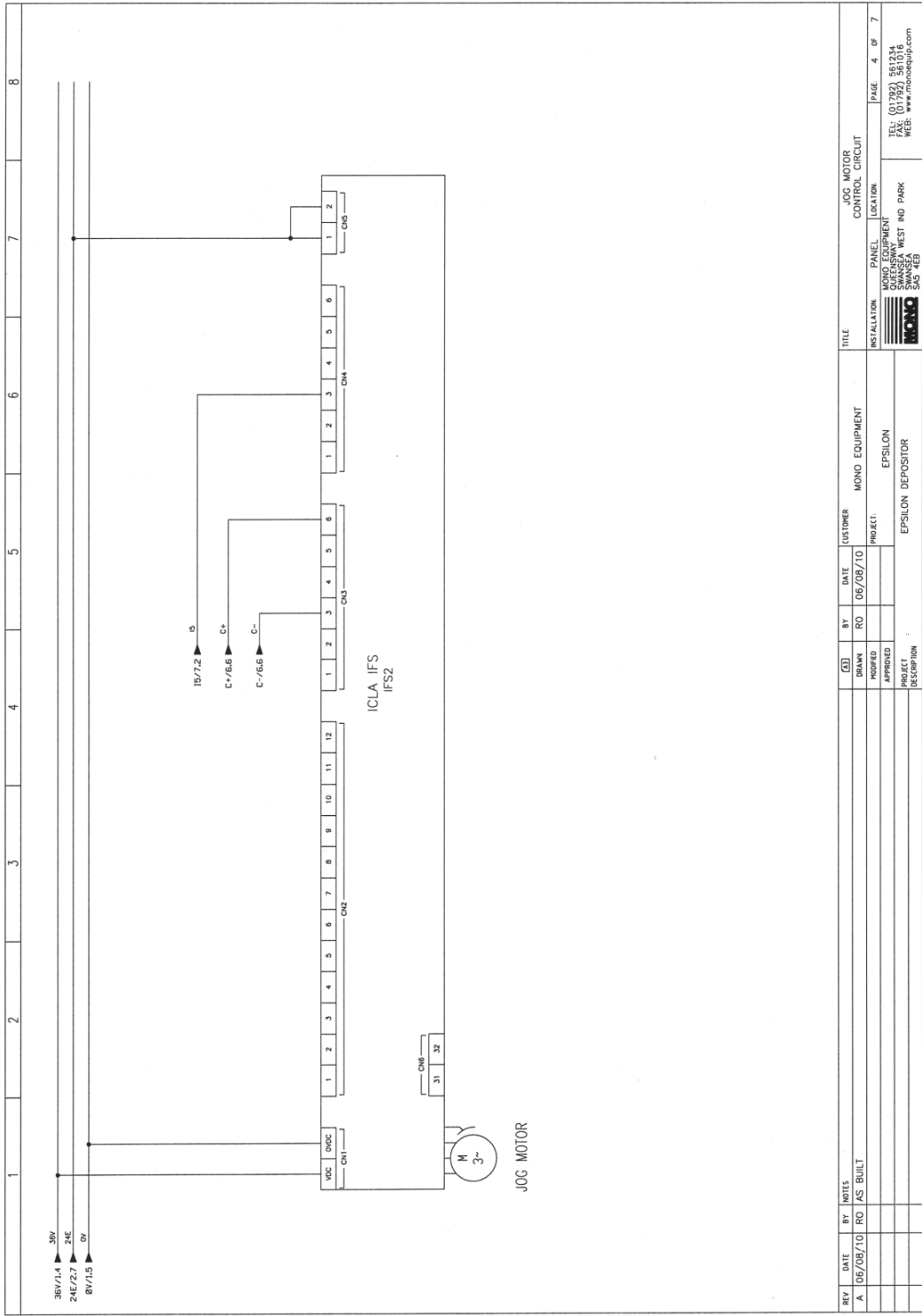
SYSTEMS HOUSE - UNIT 8  
 FROSTRE RD EST - LILLEWELL - SAL WU  
 LEICESTERSHIRE LE15 8JW  
 WEB: www.harrisa.co.uk



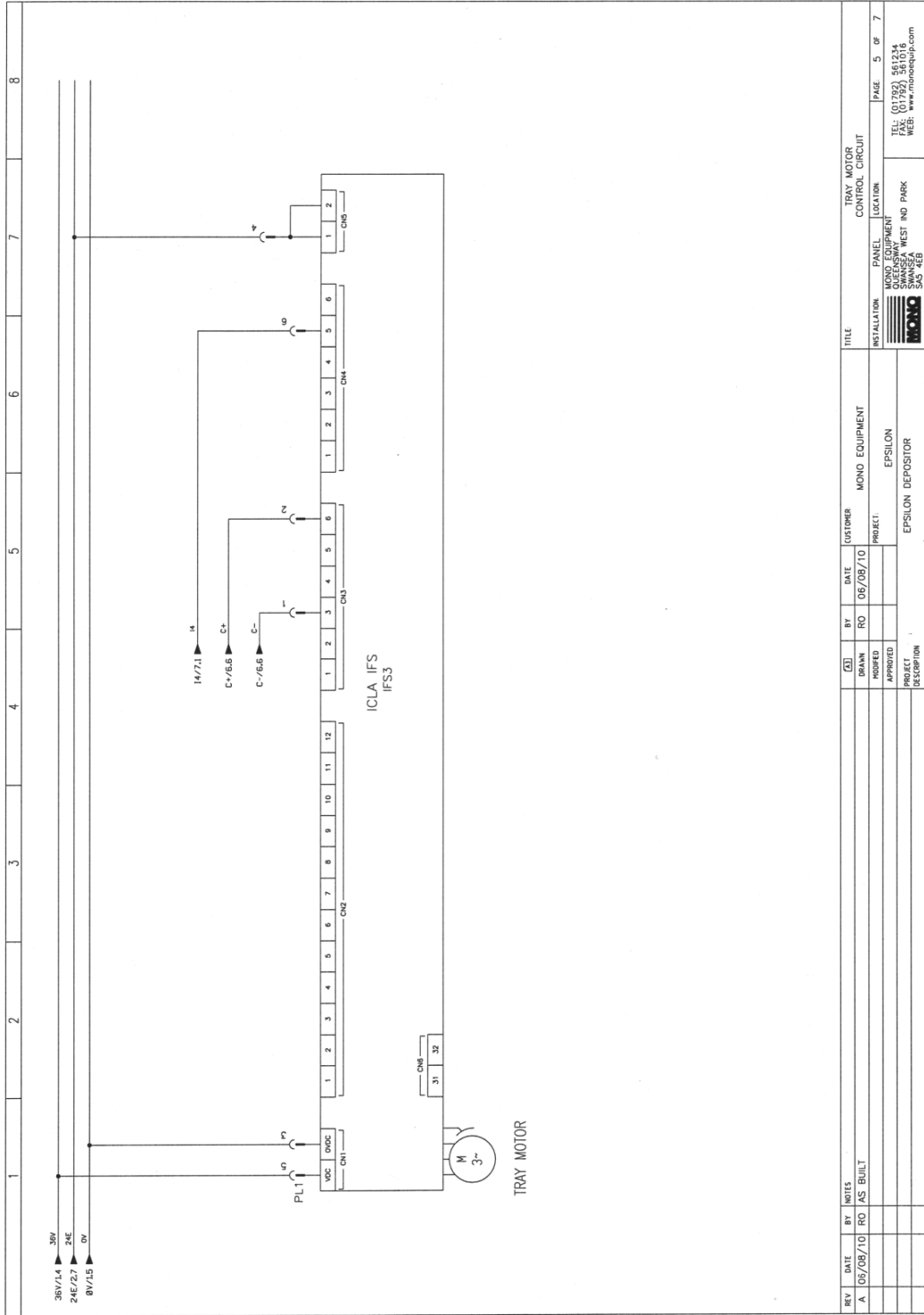
REV	DATE	BY	NOTES
A	06/09/10	RD	AS BUILT

DATE	BY	CUSTOMER	DESCRIPTION
06/05/10	RO	MONO EQUIPMENT	EPSILON DEFOSITOR





REV	DATE	BY	NOTES	GT	BY	DATE	CUSTOMER	TITLE	MONO			
A	05/08/10	RO	AS BUILT	DRAWN	RO	06/08/10		JOG MOTOR CONTROL CIRCUIT	INSTALLATION	PANEL	LOCATION	PAGE 4 OF 7
				APPROVED					MONO EQUIPMENT SWANSEA WEST IND PARK SWANSEA S.W. WALES			TEL: (01792) 561014 FAX: (01792) 561016 WEB: www.monobuild.com
				PROJECT					EPSILON			
				DESCRIPTION					EPSILON DEPOSITOR			



REV	DATE	BY	NOTES	DESCRIPTION	
A	09/09/10	RO	AS BUILT		

DRAWN		DATE	CUSTOMER	TITLE	
	RO	06/09/10	MONS EQUIPMENT	TRAY MOTOR CONTROL CIRCUIT	

APPROVED		PROJECT		INSTALLATION	
		EPSILON	EPSILON DEPOSITOR	MONS	

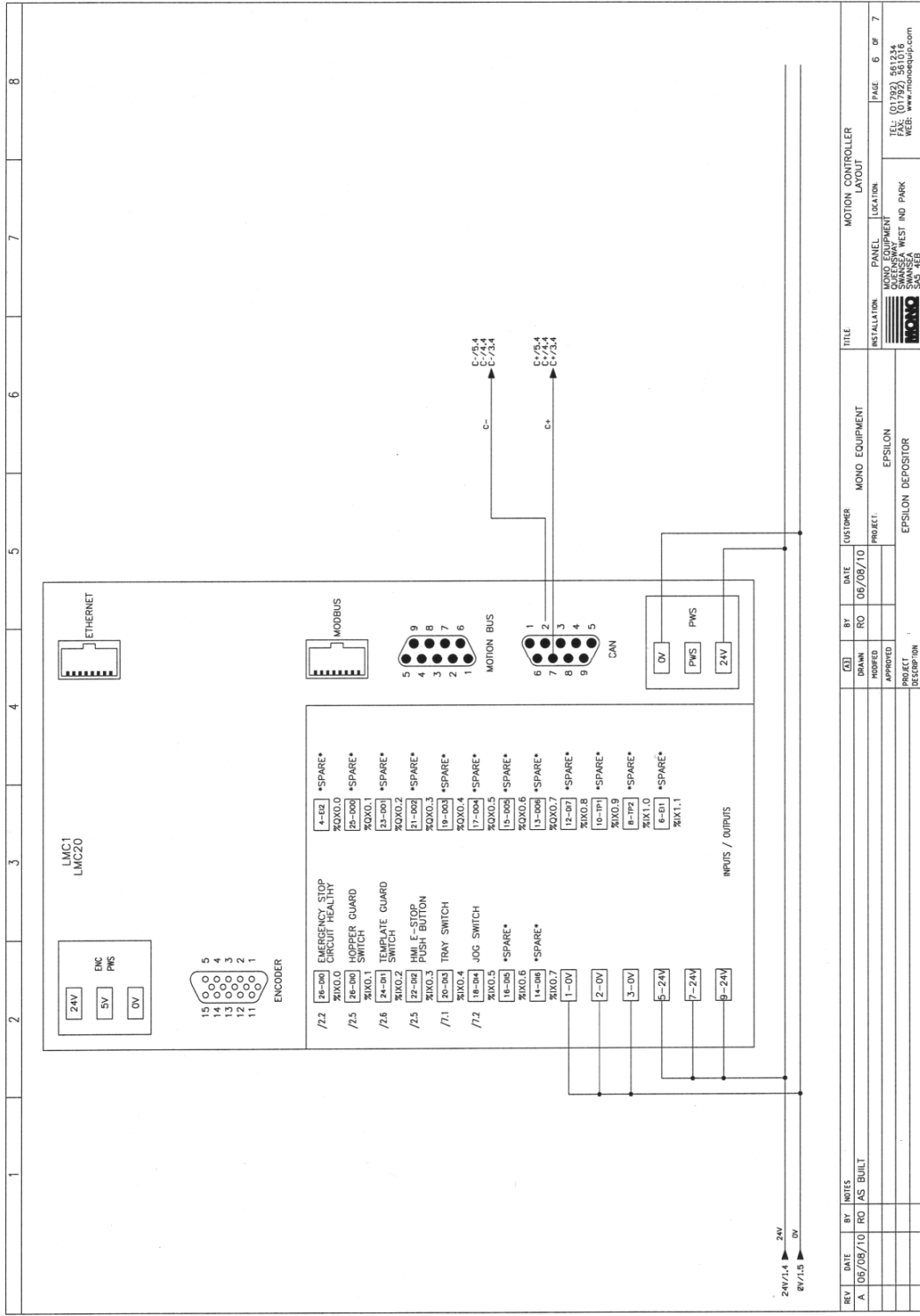
  

PROJECT		LOCATION		PAGE	
		SWANSEA WEST IND PARK	SWANSEA	5	7

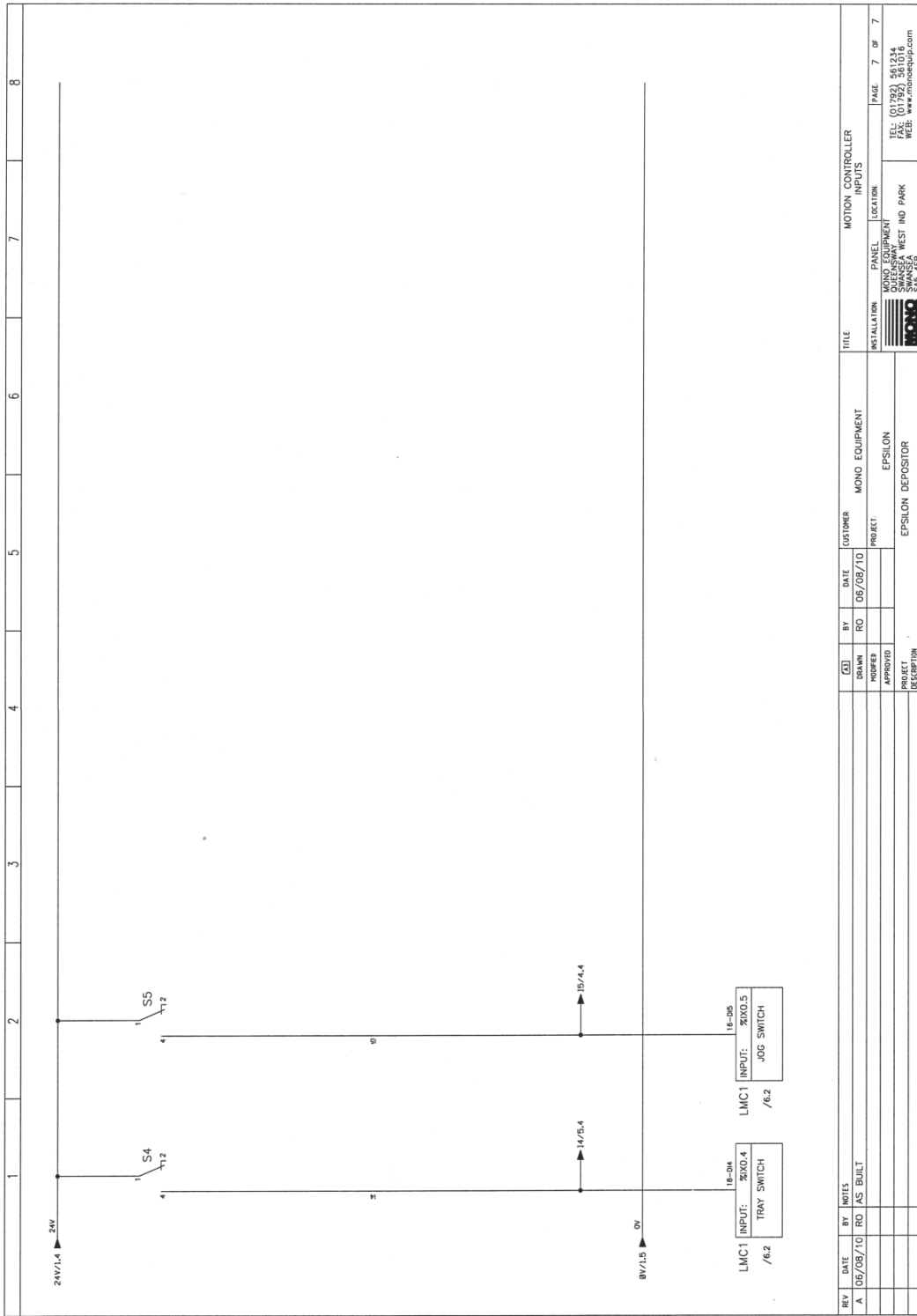
  

USEFUL CONTACTS	
TEL: (01792) 961234	
FAX: (01792) 961234	
WEB: WWW.MONSDRIP.COM	





REV	DATE	BY	NOTES	DATE	BY	DATE	CUSTOMER	MONO EQUIPMENT	TITLE	MOTION CONTROLLER																															
A	06/08/10	RO	AS BUILT	06/08/10	RO	06/08/10	MONO EQUIPMENT	MONO EQUIPMENT	INSTALLATION	MOTION CONTROLLER LAYOUT																															
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DRAWN	RO	DATE	06/08/10	CUSTOMER	MONO EQUIPMENT	TITLE	INSTALLATION	MOTION CONTROLLER LAYOUT	PANEL LOCATION	MONO EQUIPMENT																															
APPROVED				PROJECT	EPSILON					EPSILON DEPOSITORY																															
PROJECT DESCRIPTION: EPSILON DEPOSITORY PROJECT: EPSILON MONO EQUIPMENT: MONO EQUIPMENT PANEL LOCATION: MONO EQUIPMENT INSTALLATION: MONO EQUIPMENT MOTION CONTROLLER LAYOUT: MONO EQUIPMENT																																									
PAGE 6 OF 7 TEL: (01792) 961214 FAX: (01792) 961215 WEB: www.monobsp.ch																																									



REV	DATE	BY	INCHES	DATE	BY	DATE	ORDER	MONO EQUIPMENT	TITLE	MOTION CONTROLLER
A	06/08/10	RD	AS BUILT	06/08/10	RD			EPSILON DEPOSITOR	INSTALLATION	INPUTS
PROJECT: EPSILON DEPOSITOR DESCRIPTION: EPSILON DEPOSITOR APPROVED: [Signature] DRAWN: [Signature] MONO: MONO PANEL: MONO LOCATION: MONO SWANSEA WEST RD PARK SWANSEA SA 4EB										
TEL: (01782) 581234 FAX: (01782) 581234 WEB: www.monobhp.com										
PAGE 7 OF 7										

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](mailto:marketing@monoequip.com)

**Web site: [www.monoequip.com](http://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.