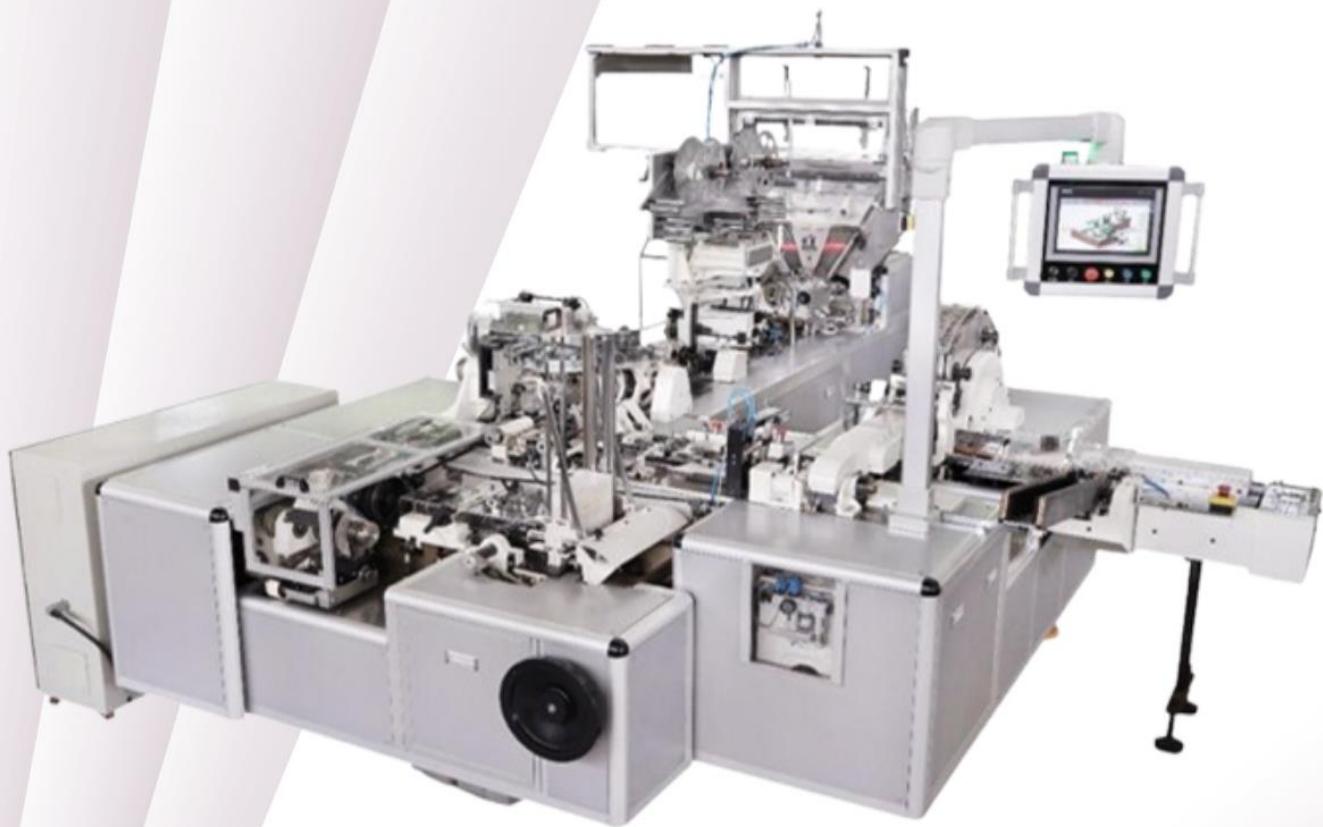




**UTM**  
PTE LTD

# **HLP-200**

## **CIGARETTE PACKING MACHINE**



**USER GUIDE**  
**OPERATION MANUAL**

## FOREWORD

### Notes About Documents

This description is intended only for use by trained specialists in control and automation engineering who are familiar with the applicable national standards. The following documents, notes and explanations must be followed when installing and operating components. It is the duty of technical personnel to use the documents issued at the time of each installation and commissioning.

Responsible staff must ensure that the application or use of the product described meets all safety requirements, including all relevant laws, regulations, guidelines and standards.

### Statement

This document has been prepared with care. However, the product described is still being developed. We reserve the right to revise and change this document at any time and without prior notice. Claims for modifications to products provided may not be made based on the data, diagrams and descriptions in this document.

## LIST OF CONTENTS

<b>FOREWORD .....</b>	<b>1</b>
<b>LIST OF CONTENTS .....</b>	<b>2</b>
<b>LIST OF FIGURES.....</b>	<b>3</b>
<b>SUMMARY .....</b>	<b>4</b>
<b>CONTROL PANEL .....</b>	<b>5</b>
1. Main Control Panel .....	5
2. Button Control Panel.....	7
3. Emergency Switch .....	11
<b>HLP-200 SCREEN FUNCTIONS .....</b>	<b>12</b>
1. Reject Position .....	14
2. Record Fault .....	16
3. Alarm Lamp .....	18
4. I/O Information .....	19
4.1 HLP-200 Inputs .....	19
4.2 HLP-200 Outputs.....	22
5. Shifts.....	25
6. Heater Settings .....	27
7. Home Screen.....	29
8. Settings.....	32
9. CAM Parameters .....	34
10. Information.....	40
<b>CLOSING .....</b>	<b>42</b>

## LIST OF FIGURES

<i>Figure 0.1 HLP-200 Cigarette Packing Machine.....</i>	4
<i>Figure 1.1 Main Control Panel.....</i>	5
<i>Figure 1.2 Main Control Panel Layout .....</i>	6
<i>Figure 1.3 Control Panel 1 Position .....</i>	7
<i>Figure 1.4 Button Control Panel Layout 1.....</i>	8
<i>Figure 1.5 Button Control Panel 2 .....</i>	9
<i>Figure 1.6 Button Control Panel Layout 2.....</i>	10
<i>Figure 1.7 Emergency Switch Position .....</i>	11
<i>Figure 2.1 Initial Display of The HLP-200 Screen.....</i>	12
<i>Figure 2.2 Reject Position Button .....</i>	14
<i>Figure 2.3 Reject Position Display.....</i>	14
<i>Figure 2.4 Record Fault Button.....</i>	16
<i>Figure 2.5 Display Fault Record Display .....</i>	16
<i>Figure 2.6 Parts of a Cigarette Pack.....</i>	17
<i>Figure 2.7 Alarm Lamp Button .....</i>	18
<i>Figure 2.8 Alarm Lamp Display.....</i>	18
<i>Figure 2.9 I/O Information Button .....</i>	19
<i>Figure 2.10 Input Display S I0.0 – I1.7 .....</i>	19
<i>Figure 2.11 Input Display S I2.0 – I3.7.....</i>	20
<i>Figure 2.12 Input Display S I4.0 – I5.7 .....</i>	20
<i>Figure 2.13 Input Display S I6.0 – I7.7 .....</i>	21
<i>Figure 2.14 Input Display S I8.0 - I9.7 .....</i>	21
<i>Figure 2.15 Output Display S Q0.0 - Q2.5.....</i>	22
<i>Figure 2.16 Output Display S Q2.6 - Q3.7.....</i>	22
<i>Figure 2.17 Shift Button.....</i>	25
<i>Figure 2.18 Shift Display .....</i>	25
<i>Figure 2.19 Heater Setting Button .....</i>	27
<i>Figure 2.20 Heater Settings Display .....</i>	27
<i>Figure 2.21 Home Screen Button .....</i>	29
<i>Figure 2.22 The Home Screen Displays An Error In The Machine Position .....</i>	29
<i>Figure 2.23 Home Screen Display in Machine Ready Position.....</i>	30
<i>Figure 2.24 The “View” Screen Displays On The Home Screen.....</i>	31
<i>Figure 2.25 Machine Not Ready .....</i>	31
<i>Figure 2.26 Machine Ready.....</i>	31
<i>Figure 2.27 Machine Running.....</i>	31
<i>Figure 2.28 Settings Button .....</i>	32
<i>Figure 2.29 Display Settings Screen .....</i>	32
<i>Figure 2.30 Cam Parameters Button .....</i>	34
<i>Figure 2.31 Screen Display 1 Cam Parameters .....</i>	34
<i>Figure 2.32 Screen Display 2 Cam Parameters .....</i>	35
<i>Figure 2.33 Example Of Applying Cam To Sensors.....</i>	37
<i>Figure 2.34 Control Panel.....</i>	38
<i>Figure 2.35 Sensor lose end and lose filter .....</i>	38
<i>Figure 2.36 Fiber Amplifier .....</i>	38
<i>Figure 2.37 Degree Cam Encoder .....</i>	39
<i>Figure 2.38 Packer machine HLP-200.....</i>	39
<i>Figure 2.39 Information Button .....</i>	40
<i>Figure 2.40 Information Screen Display .....</i>	40

## SUMMARY



Figure 0.1 HLP-200 Cigarette Packing Machine

This document will also place special emphasis on the automatic control system integrated with the HLP-200 cigarette packaging machine. This automatic control system is one of the superior features that makes this machine very reliable in the modern cigarette industry. With leading artificial intelligence, the HLP-200 automated control system is able to regulate and monitor every aspect of the cigarette packaging process with extraordinary precision.

The use of an automatic control system not only increases production efficiency, but also ensures consistency and reliability in every cigarette package produced. With the ability to automatically adjust operational parameters according to needs, this machine can optimize production output without sacrificing quality. Apart from that, the automatic control system on the HLP-200 is also equipped with intelligent sensors that can detect and automatically handle various potential problems during the production process, thereby minimizing the risk of damage and machine downtime.

Thus, it can be concluded that the presence of an automatic control system on the HLP-200 cigarette packaging machine is not only a technological innovation, but also a smart investment for cigarette companies that prioritize efficiency, quality and reliability in their operations.

## CONTROL PANEL

### 1. Main Control Panel



Figure 1.1 Main Control Panel

The multi-function control panel is designed to increase efficiency and ease of use in a variety of applications, allowing users to quickly access various features or operations by pressing specific buttons. Each button on this panel is usually created to perform a specific task so that users can operate the device or system more intuitively and effectively.

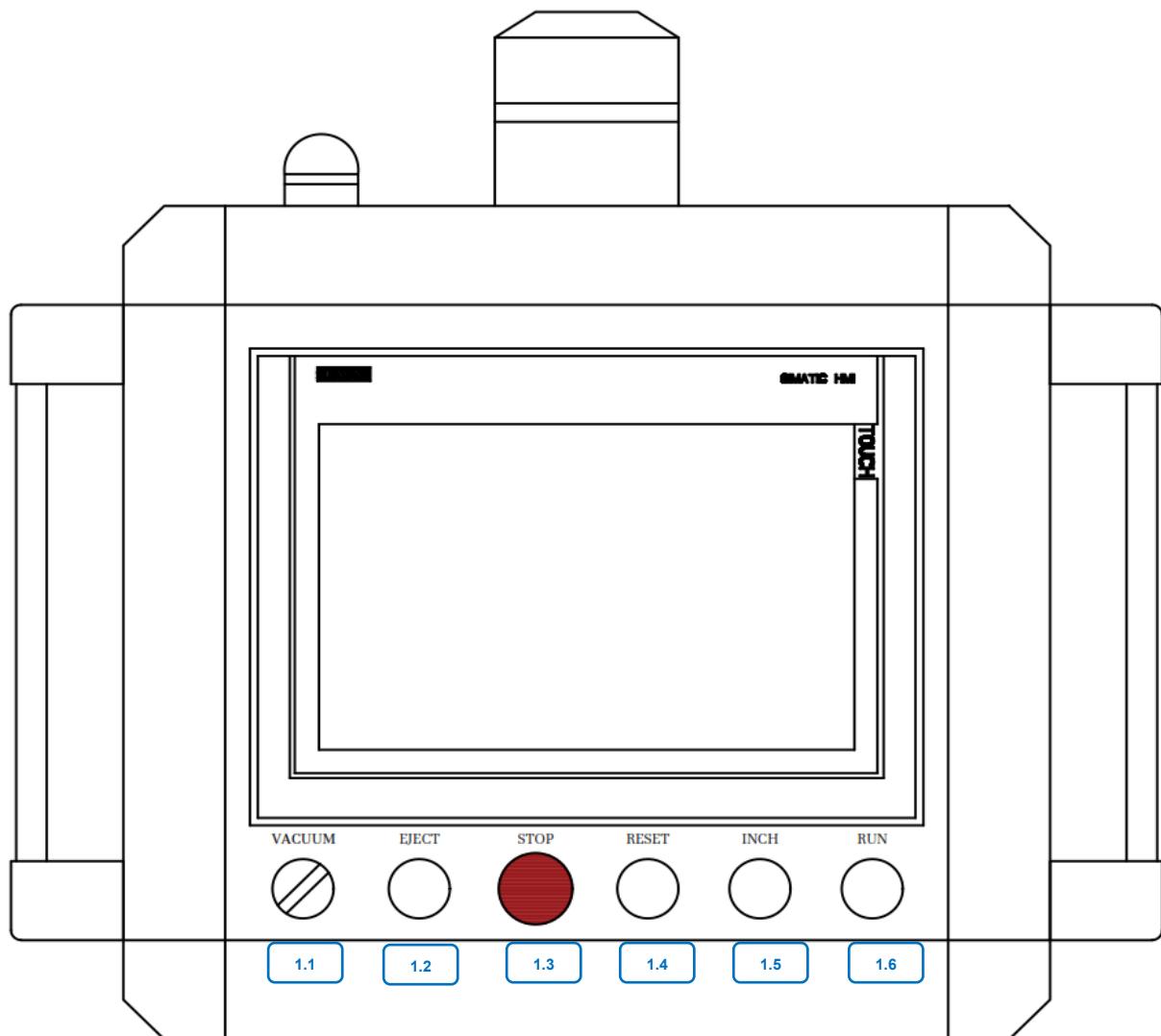


Figure 1.2 Main Control Panel Layout

<b>Position Function</b>	<b>Description</b>
<b>MAIN CONTROL PANEL</b>	
1.1	Selector which functions to turn on/off the vacuum motor.
1.2	Button that functions to reject the product manually.
1.3	The button functions to stop the machine.
1.4	The button functions to reset the alarm/error that appears on the layer.
1.5	The button functions to run the machine as long as the button is pressed at inch speed.
1.6	The button that functions to start the machine.

## 2. Button Control Panel

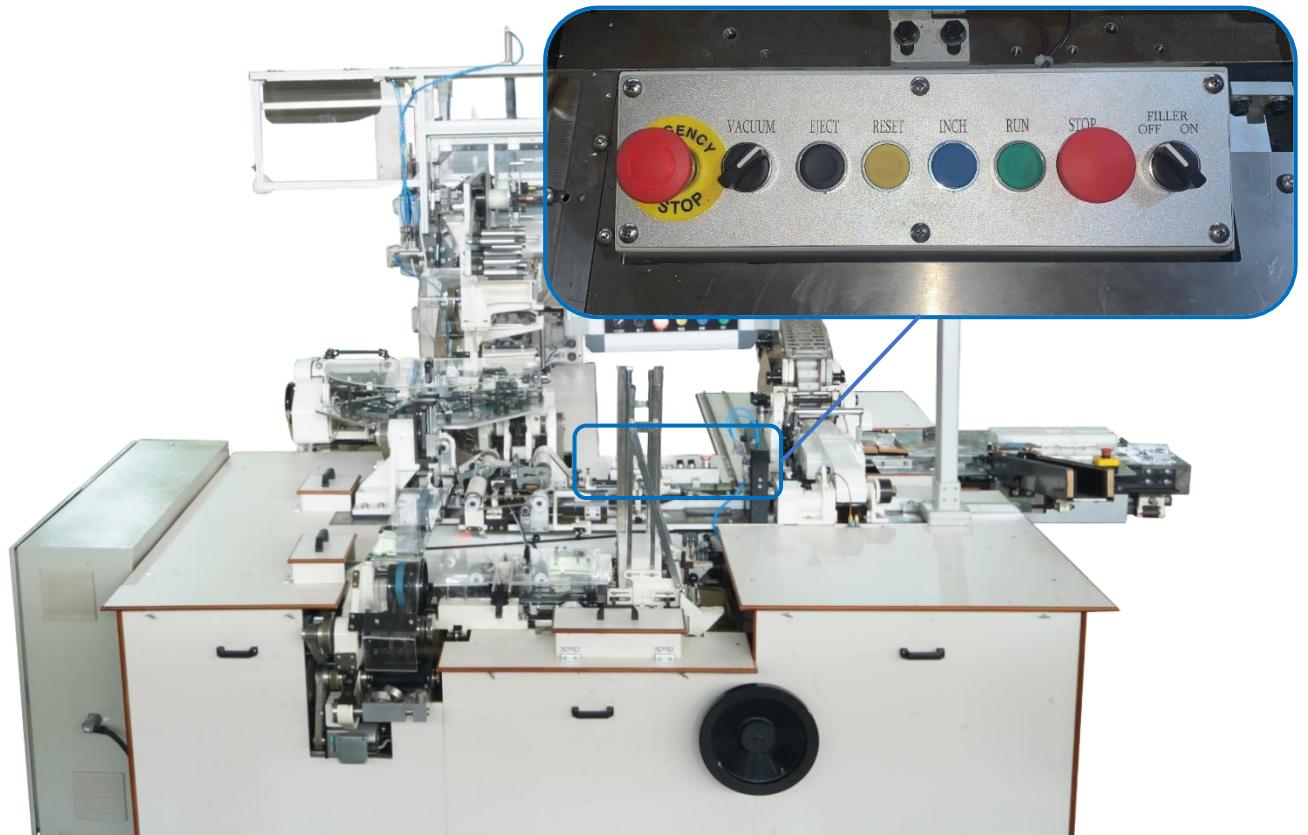


Figure 1.3 Control Panel 1 Position

Apart from the main control panel, this machine is also equipped with an additional control panel in the form of buttons. The difference is, this additional control panel is not equipped with an HMI screen like the main control panel. This button control panel functions to provide direct control over machine operations, such as activating or deactivating certain functions, regulating the running of the machine, and even carrying out emergency stops without the need for interaction via the screen.

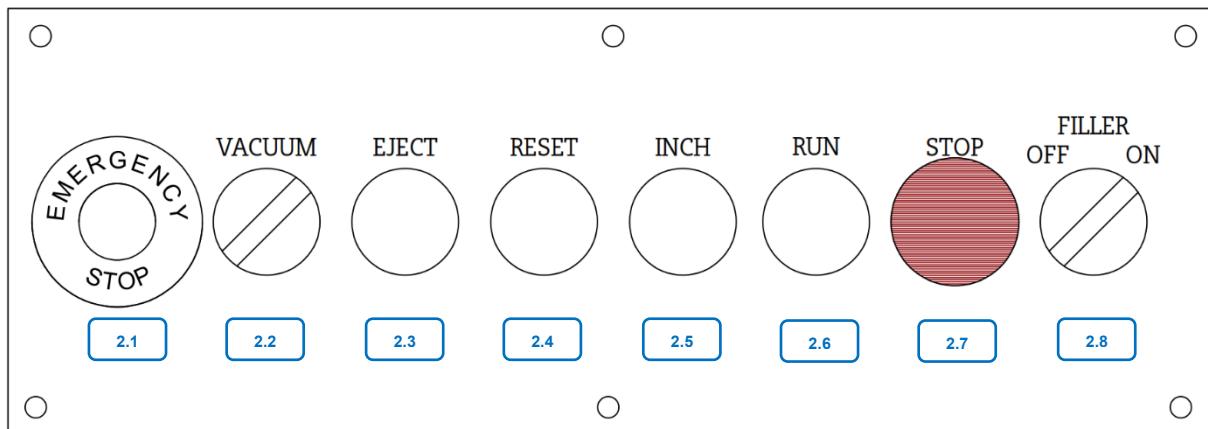


Figure 1.4 Button Control Panel Layout 1

<b>Position Function</b>	<b>Description</b>
<b>BUTTON CONTROL PANEL 1</b>	
2.1	<i>Emergency Switch.</i>
2.2	Selector which functions to turn on/off the vacuum motor.
2.3	The Button functions to reject the product manually.
2.4	The button functions to reset the alarm/error that appears on the layer.
2.5	The button functions to run the machine as long as the button is pressed at inc speed.
2.6	The button that functions to start the machine.
2.7	The button functions to stop the machine.
2.8	Selector which functions to turn on/off the Filler motor.

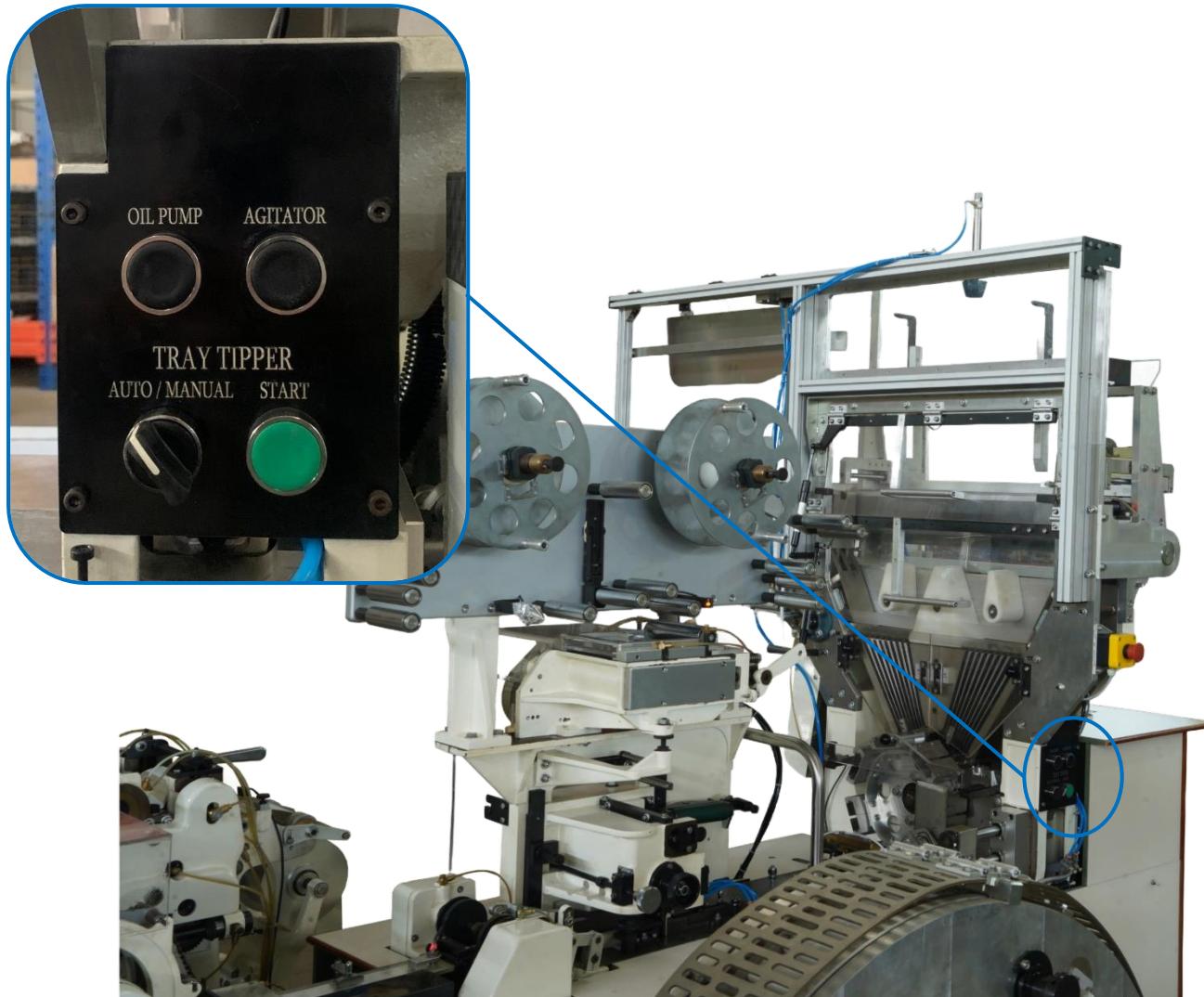


Figure 1.5 Button Control Panel 2

There are also additional controls on this machine in the form of buttons. The difference is, this additional control panel is not equipped with an HMI screen like the main control panel. This button control panel functions to provide direct control of the oil pump, agitator as well as selecting the tray tipper mode and the tray tipper start button without the need for interaction via the screen.

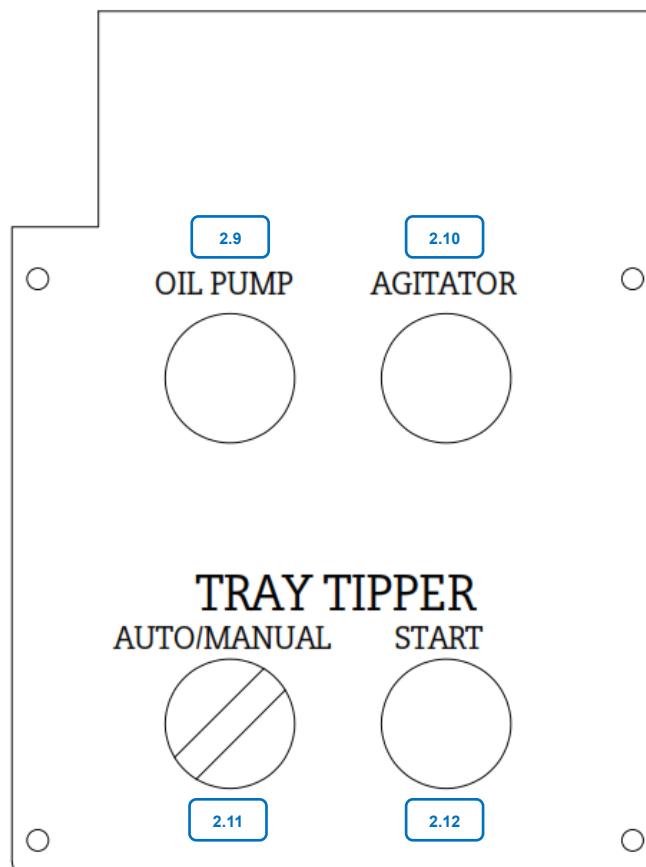


Figure 1.6 Button Control Panel Layout 2

Position Function	Description
<b>BUTTON CONTROL PANEL 2</b>	
2.9	The button functions to activate oil to lubricate the engine manually.
2.10	The button functions to activate the combination of cigarettes into one pack by shaking.
2.11	The selector which functions to determine the tray will be activated automatically/manually. If the selector is in the automatic position, the tray will rise automatically when the tray is placed.
2.12	Button that functions to raise the tray manually.

### 3. Emergency Switch

Apart from the buttons on the control panel, emergency buttons are also found on several parts of the machine as an emergency precaution. By placing them in several locations, such as around the machine area or in places easily accessible to the operator, these emergency buttons make it possible to immediately stop machine operation in an emergency or urgent situation without having to look for the main control panel. This increases safety and responsibility in machine operation.

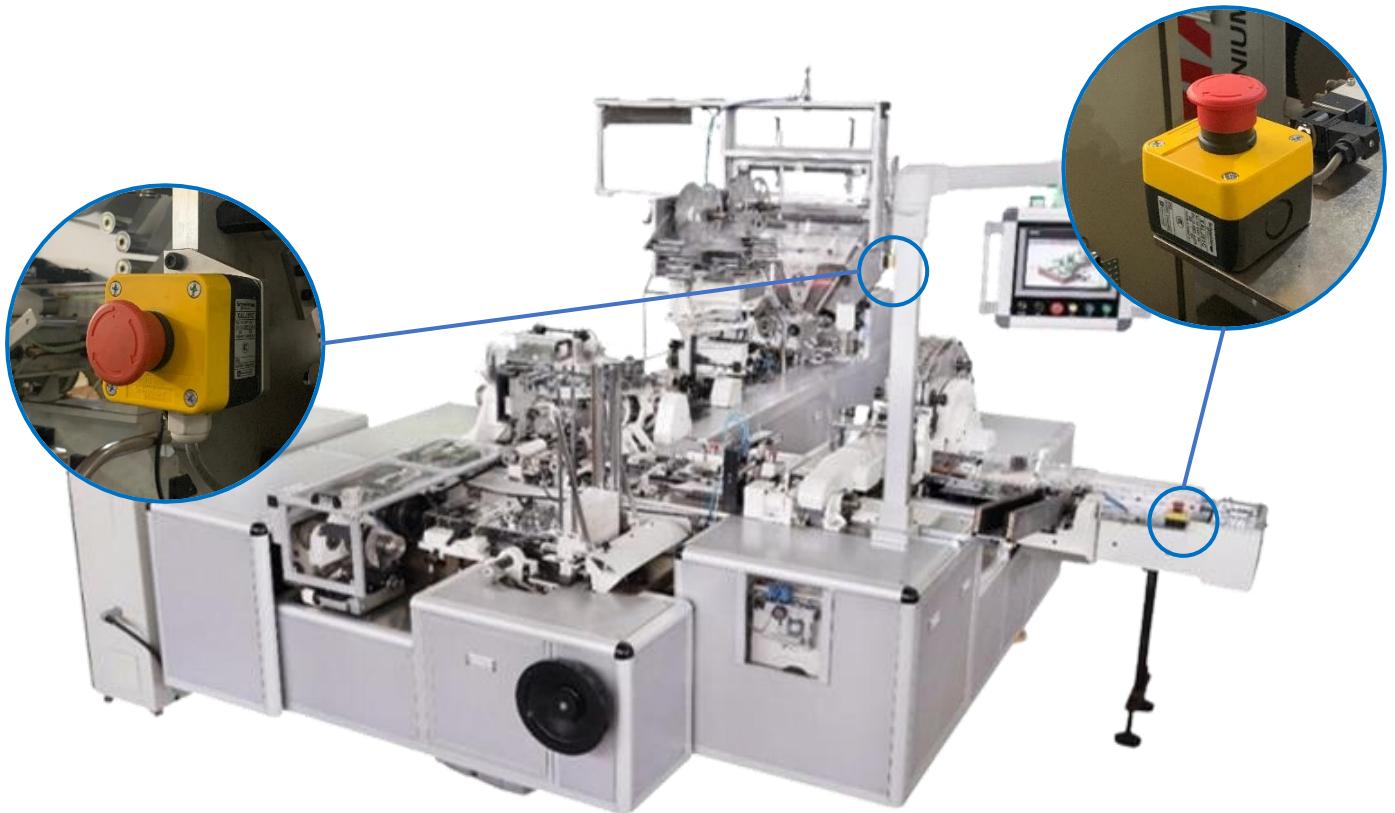


Figure 1.7 Emergency Switch Position

## HLP-200 SCREEN FUNCTIONS

The HLP-200 HMI display is an important user interface for machine operation, offering a number of diverse and functional menus. Through this screen, users can easily access various features and functions that are essential for running the machine.

With an interface designed to be intuitive and responsive, users can smoothly interact with the machine, whether to monitor its performance, make settings, or adjust various aspects according to production needs.



Figure 2.1 Initial Display of The HLP-200 Screen

When the device is activated, the HLP-200 HMI screen will display various interactive menus that allow users to explore the various available features. Some of the menus presented include Reject Position, Alarm, Record Fault, Heater Settings, I/O Information, Shift, Home Screen, Settings, and CAM Parameters. By providing detailed menus, this interface gives users the ability to control specific HLP-200 operations, as well as monitor machine performance more effectively.

Position Function	Description
<b>SCREEN DISPLAY</b>	
1	Button that functions to navigate to the Reject Position menu.
2	Button that functions to navigate to the Alarm menu.
3	Button that functions to navigate to the Record Fault menu.
4	Button that functions to navigate to the Heater Settings menu.
5	Button that functions to navigate to the I/O Information menu.
6	Button that functions to navigate to the Shift menu.
7	Button that functions to navigate to the Home Screen menu.
8	Button that functions to navigate to the Settings menu.
9	Button that functions to navigate to the CAM Parameters menu.
10	Button that functions to navigate to the Information menu.

## 1. Reject Position

By pressing the right and wrong shaped buttons, the HMI screen will display the HLP2 - REJECT POSITION menu. With easy navigation, Users can see the position of product rejects that occur on the machine.



Figure 2.2 Reject Position Button

On the reject position screen, there is reject information such as, Missing Filter, Loose End, Missing Cigarette, Missing Foil, Missing Innerframe, Missing Blank, Blank Feed, Missing Bundle, and Ejected Packet. Under normal conditions, positions 0 – 21 will be displayed in green to show that everything is running normally, when a product reject occurs, one of the positions will be marked in red according to the reject that occurred on the machine.

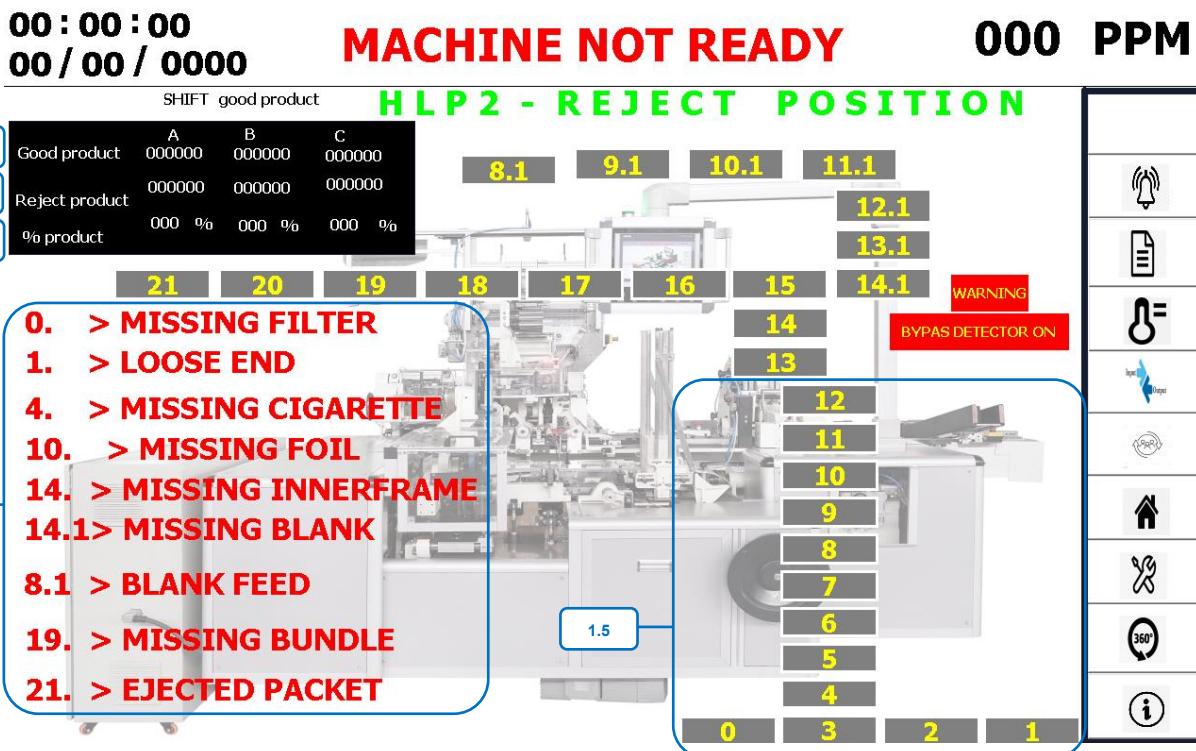


Figure 2.3 Reject Position Display



Position Function	Description
<i>Reject Position</i>	
1.1	Displays the total number of good products produced in each shift (shift A, shift B, and shift C).
1.2	Displays the total number of rejected products produced in each shift (shift A, shift B, and shift C).
1.3	Displays the percentage of overall products produced in each shift (shift A, shift B, and shift C). (the total number of production results rejected products).
1.4	Displays information on the type of reject according to the numbering on the reject position.
1.5	Displays the position numbering of the path traversed by the cigarette pack.

## 2. Record Fault

By pressing the document icon button, the screen will switch to the Record Fault menu display. With easy navigation, Users can see the number of product faults that occurred in shift 1, shift 2 and shift 3.

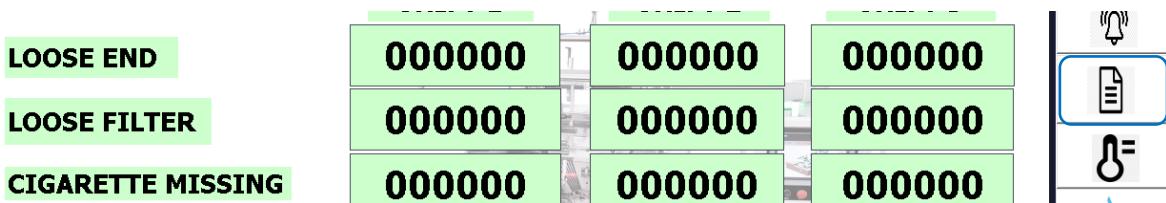


Figure 2.4 Record Fault Button

On the Record Fault screen display there is a classification consisting of 7 types of product faults that can be detected, these types of faults include Loose End, Loose Filter, Cigarette Missing, Innerframe, Blank Missing, Bundle Missing, and Manual Reject.

00 : 00 : 00      **MACHINE NOT READY**    000 PPM  
00 / 00 / 0000

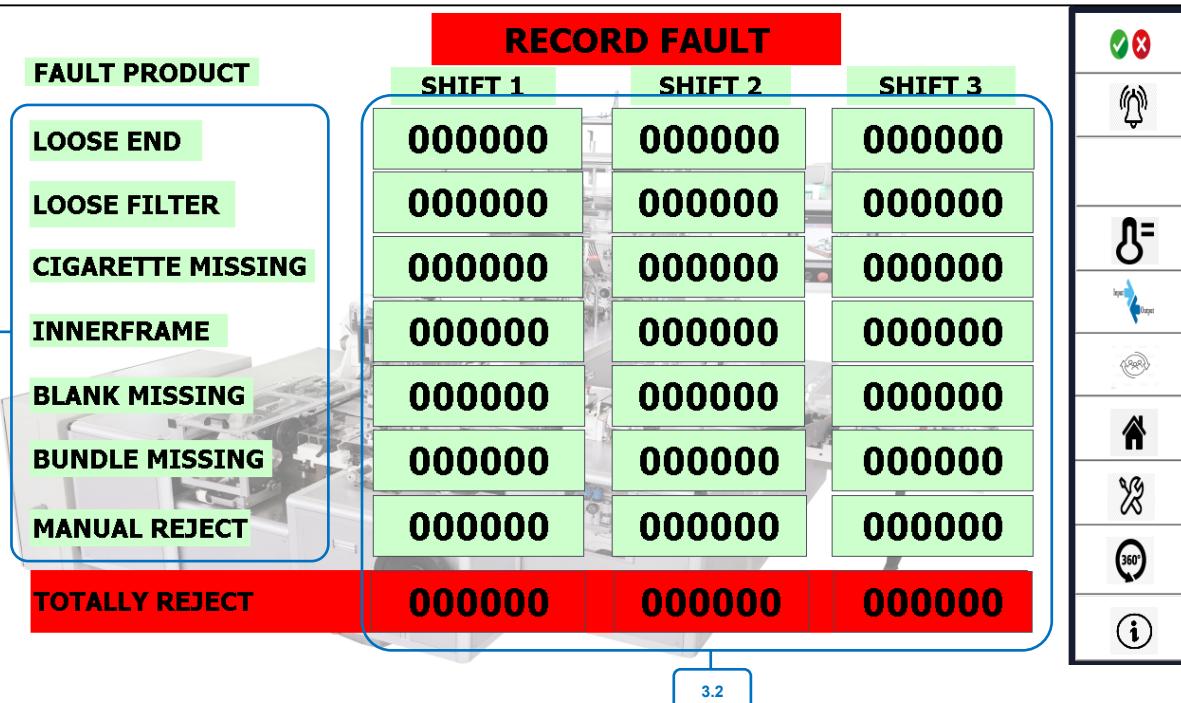


Figure 2.5 Display Fault Record Display

Position Function	Description
<b>RECORD FAULT</b>	
3.1	<p>Types of product faults.</p> <p><b>LOOSE END:</b> The tobacco tip of the cigarette is not completely filled.</p> <p><b>CIGARETTE MISSING:</b> There are less than the required number of cigarettes in the pack.</p> <p><b>INNERFRAME:</b> The inner paper on the cigarette is missing or damaged.</p> <p><b>BLANK MISSING:</b> Cigarette cartons are lost or damaged.</p> <p><b>BUNDLE MISSING:</b> The entire pack of cigarettes is missing or damaged.</p> <p><b>MANUAL REJECT:</b> rejected manually.</p>
3.2	<p>Displays the number of each fault product that occurred in each shift (shift A, shift B, and shift C) as well as the total rejects in each shift (shift A, shift B, and shift C).</p>

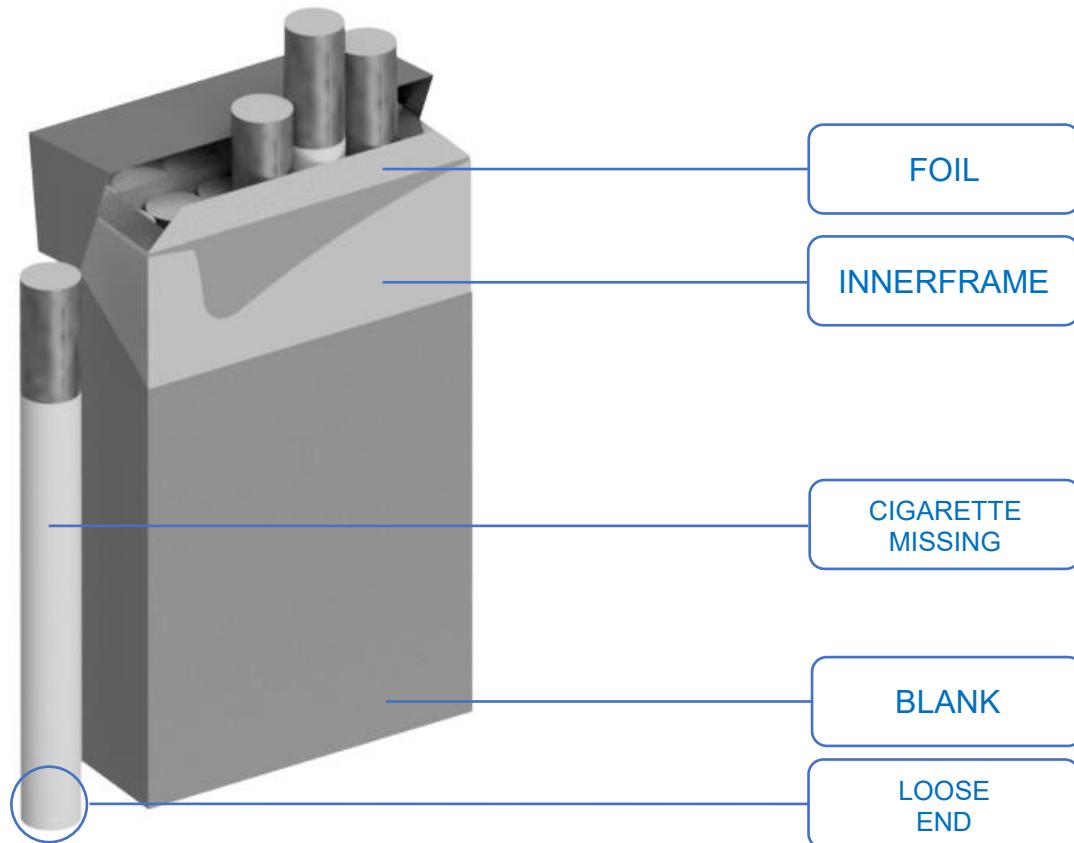


Figure 2.6 Parts of a Cigarette Pack

### 3. Alarm Lamp

By pressing the bell icon button, the screen will switch to the Alarm Lamp menu display. With easy navigation, Users can see the description of the 7 colors of alarm lights.



## ALARM LAMP

**BLUE**



**LOOSE END CIGARETE**

Figure 2.7 Alarm Lamp Button



On the Alarm Lamp screen display, there are settings to activate and deactivate the alarm. When the alarm is activated, the alarm light on the control panel will light up with a color indicating the machine status. There are 7 colors indicating various different statuses that can be seen on the alarm lamp screen.

00 : 00 : 00  
00 / 00 / 0000

**MACHINE NOT READY** 000 PPM



## ALARM LAMP

**BLUE**



**LOOSE END CIGARETE**

**CYAN**



**MACHINE READY**

**RED**



**STOP MACHINE / JAM**

**YELLOW**



**DOWNSTREAM STOP**

**GREEN**



**MACHINE RUNNING**

**WHITE**



**MATERIAL WEAR OUT**

**MAGENTA**



**LOOSE END/FILTER CIGARETE**



Figure 2.8 Alarm Lamp Display

#### 4. I/O Information

By pressing the input and output icon buttons, the HMI screen will display the HLP-200 INPUT and HLP-200 OUTPUT menus. With easy navigation, users can view information and addresses of input (I0.0 – I9.7) and output (Q0.0 -Q3.7).



Figure 2.9 I/O Information Button

On the I/O Information screen display, each input and output address has an indicator, the green indicator on the address shows the address is active, while the red indicator on the address shows the address is inactive.

#### 4.1 HLP-200 Inputs

00 : 00 : 00  
00 / 00 / 0000 **MACHINE NOT READY 000 PPM**

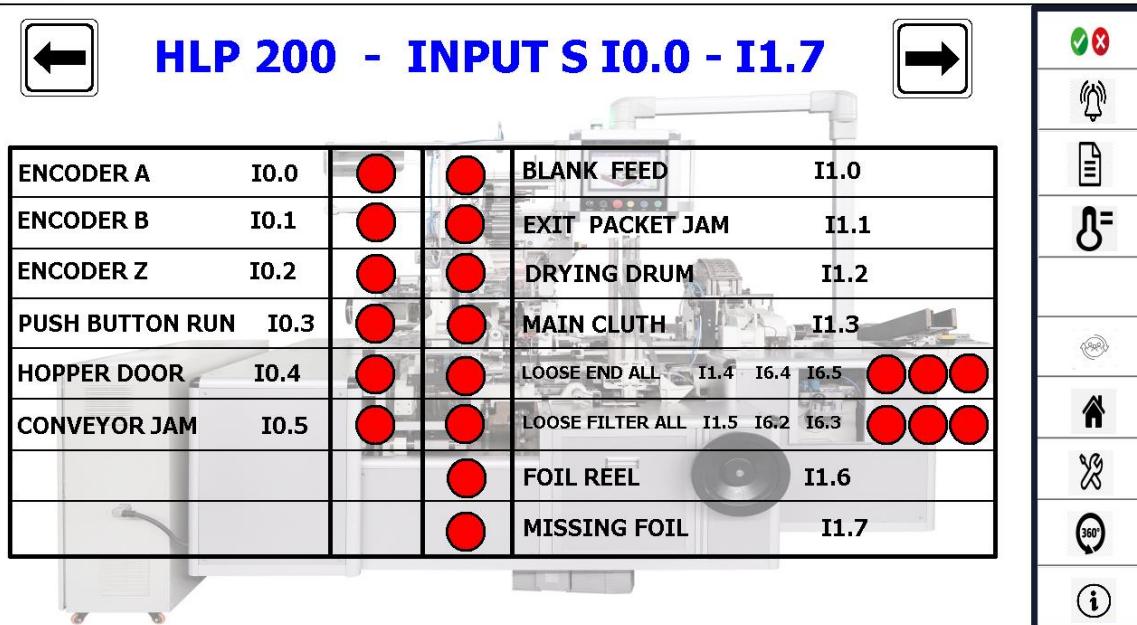


Figure 2.10 Input Display S I0.0 – I1.7

00 : 00 : 00  
00 / 00 / 0000

## MACHINE NOT READY 000 PPM

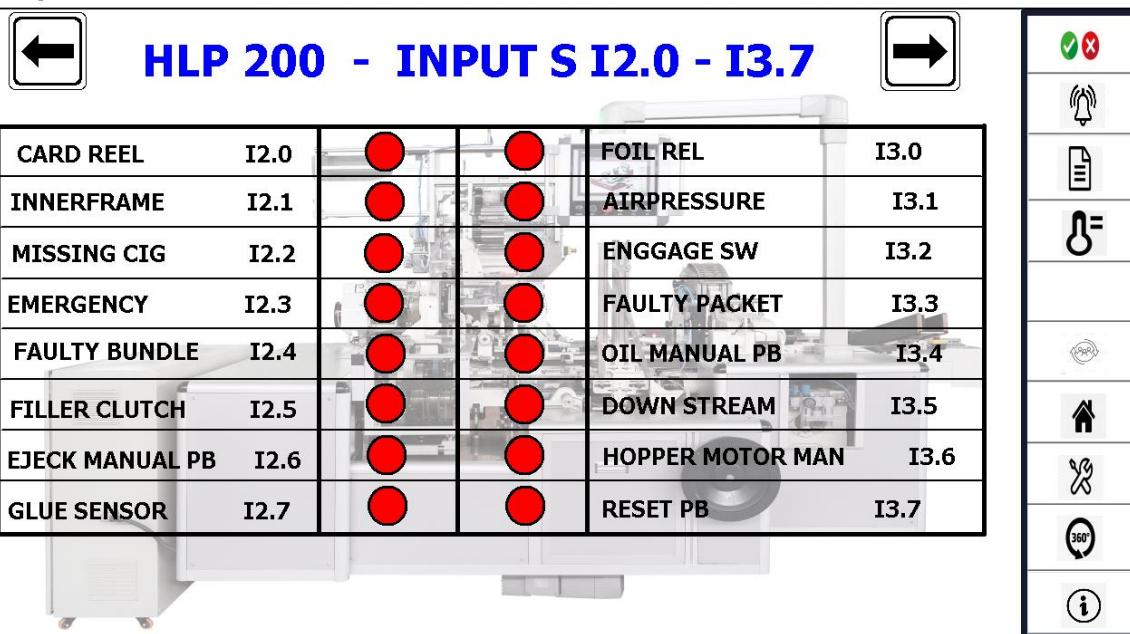


Figure 2.11 Input Display S I2.0 – I3.7

00 : 00 : 00  
00 / 00 / 0000

## MACHINE NOT READY 000 PPM

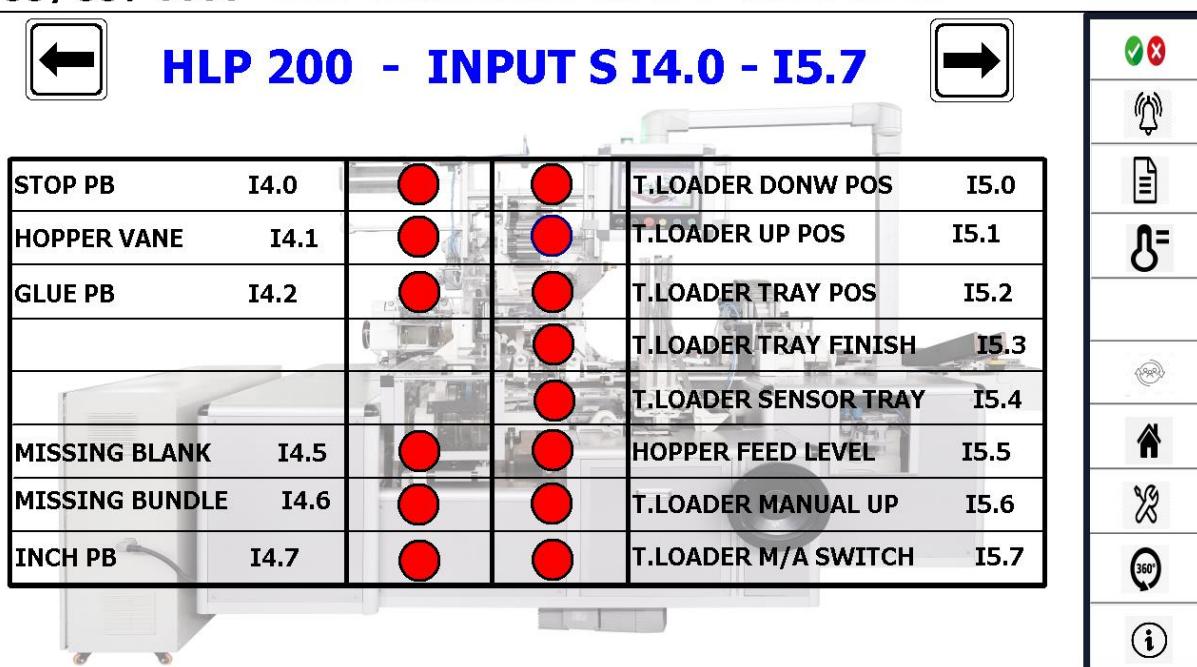


Figure 2.12 Input Display S I4.0 – I5.7

00 : 00 : 00  
00 / 00 / 0000 **MACHINE NOT READY** 000 PPM



## HLP 200 - INPUT S I6.0 - I7.7



PROXY FILLER POS I6.0			T.TRAY FULL I7.0
FILLER BELT EXTAND I6.1			SEALER POS STOP I7.1
FILTER MISS 2 I6.2			TRANSFER DRUM I7.2
FILTER MISS 3 I6.3			COVER FOIL JAM I7.3
LOOS END 2 I6.4			COVER CIGARRETE JAM I7.4
LOOS END 3 I6.5			DOOR LODER I7.5
EMERGENCY STOP 2 I6.6			



Figure 2.13 Input Display S I6.0 – I7.7

00 : 00 : 00  
00 / 00 / 0000 **MACHINE NOT READY** 000 PPM



## HLP 200 - INPUT S I8.0 - I9.7



OUTPUT

VANE HOPPER 1 I8.0			VANE HOPPER 9 I9.0
VANE HOPPER 2 I8.1			VANE HOPPER 10 I9.1
VANE HOPPER 3 I8.2			VANE HOPPER 11 I9.2
VANE HOPPER 4 I8.3			VANE HOPPER 12 I9.3
VANE HOPPER 5 I8.4			VANE HOPPER 13 I9.4
VANE HOPPER 6 I8.5			VANE HOPPER 14 I9.5
VANE HOPPER 7 I8.6			SAVE TRAY SENSOR I9.6
VANE HOPPER 8 I8.7			

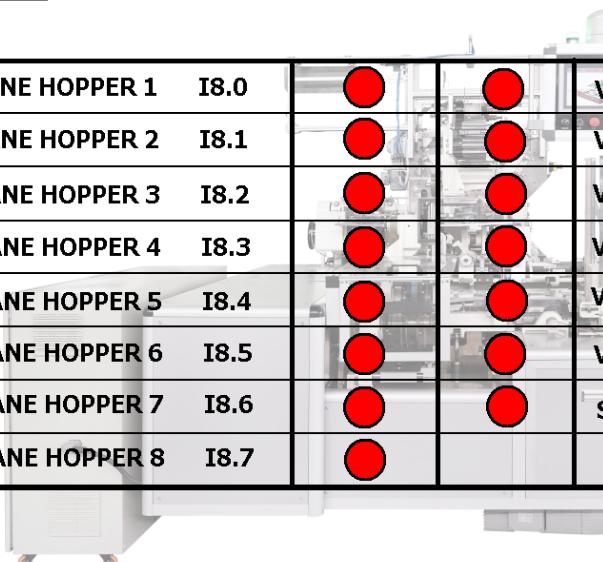


Figure 2.14 Input Display S I8.0 - I9.7

#### 4.2 HLP-200 Outputs

00 : 00 : 00  
00 / 00 / 0000

**MACHINE NOT READY** 000 PPM

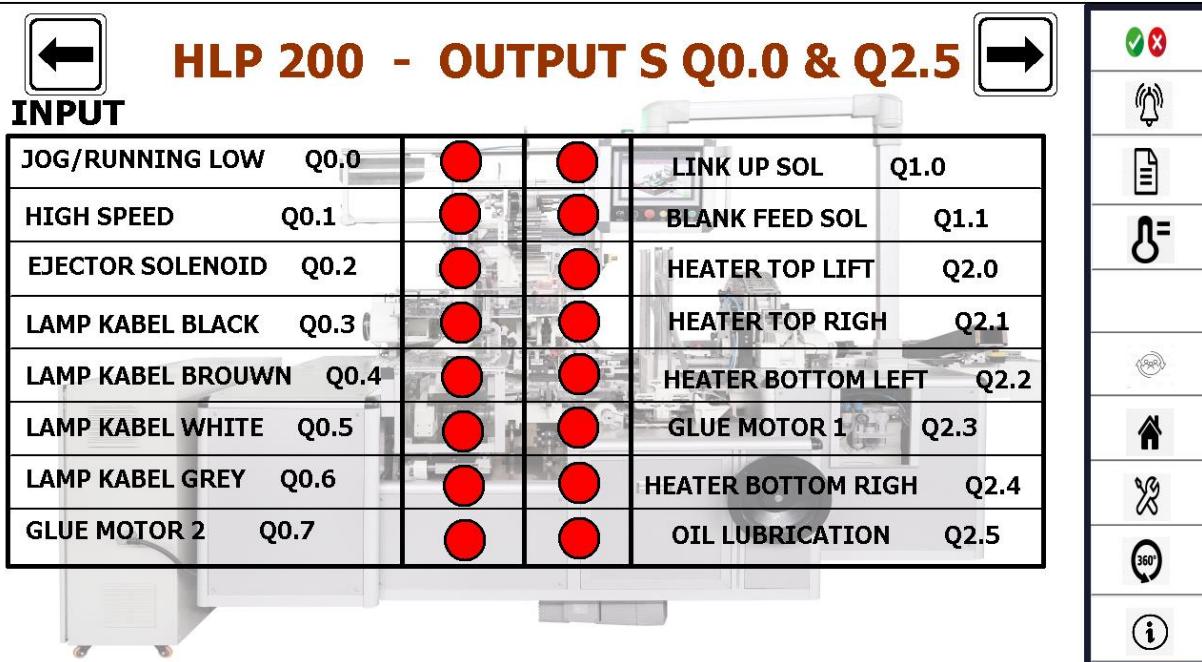


Figure 2.15 Output Display S Q0.0 - Q2.5

00 : 00 : 00  
00 / 00 / 0000

**MACHINE NOT READY** 000 PPM

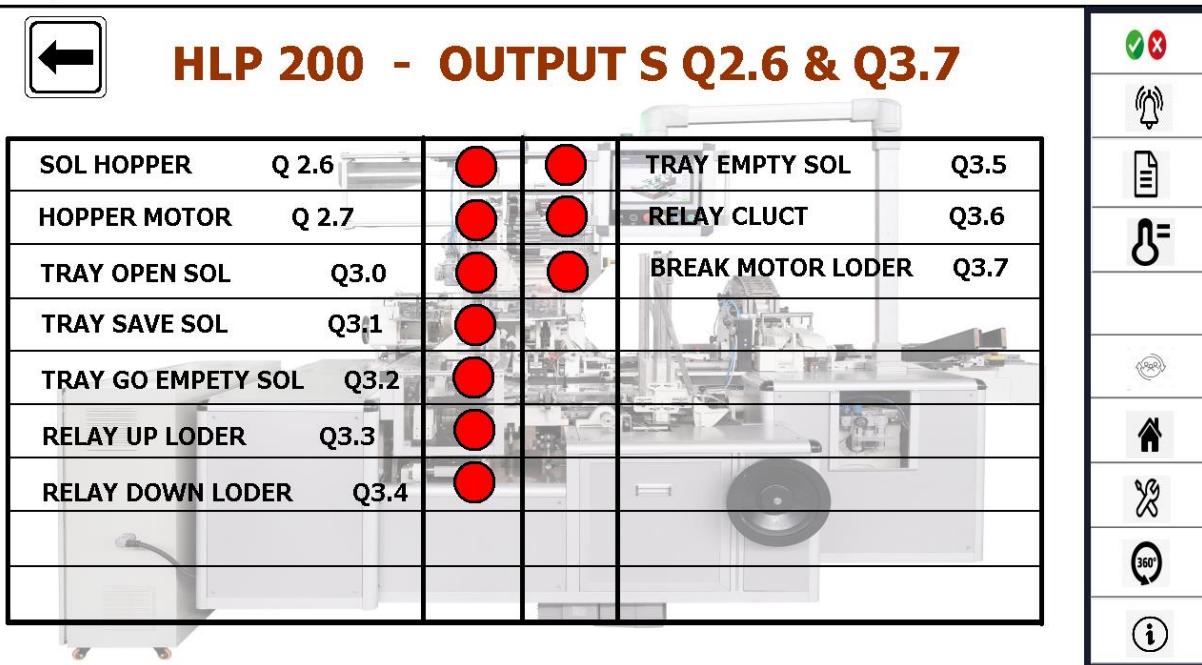


Figure 2.16 Output Display S Q2.6 - Q3.7

HLP-200 I/O			
Inputs		Outputs	
I0.0-I1.7		Q0.0-Q2.5	
I0.0	Encoder A	Q0.0	Jog/Running Low
I0.1	Encoder B	Q0.1	High Speed
I0.2	Z encoder	Q0.2	Ejector Solenoid
I0.3	Push Button Run	Q0.3	Black Cable Lamp
I0.4	Hopper Door	Q0.4	Brown Cable Lamp
I0.5	Clock Conveyor	Q0.5	White Cable Lamp
I1.0	Blank Feed	Q0.6	Gray Cable Lamp
I1.1	Exit Packet Hours	Q0.7	Glue Motor 2
I1.2	Drying Drums	Q1.0	Link Up Sol
I1.3	Play Clutch	Q1.1	Blank Feed Sol
I1.4	Loose End All	Q2.0	Top Lift Heater
I1.5	Loose Filter All	Q2.1	Heater Top Right
I1.6	Foil Reels	Q2.2	Heater Bottom Left
I1.7	Missing Foil	Q2.3	Glue Motor 1
		Q2.4	Heater Bottom Right
		Q2.5	Oil Lubrication
I2.0-I3.7		Q2.6-Q3.7	
I2.0	Card Reels	Q2.6	Sol Hopper
I2.1	Innerframe	Q2.7	Hopper Motor
I2.2	Missing Cig	Q3.0	Tray Open Sole
I2.3	Emergency	Q3.1	Tray Save Sol
I2.4	Faulty Bundle	Q3.2	Tray Go Empty Sol
I2.5	Clutch Filters	Q3.3	Relay Up Loader
I2.6	PB Manual Eject	Q3.4	Down Loader Relay
I2.7	Glue Sensor	Q3.5	Tray Empty Sol
I3.0	Foil Reels	Q3.6	Clutch Relays
I3.1	Air Pressure	Q3.7	Break Motor Loader
I3.2	Engage SW		
I3.3	Faulty Packet		
I3.4	Oil Manual PB		
I3.5	Downstream		
I3.6	Hopper Motorcycle Man		
I3.7	PB reset		
I4.0-I5.7			
I4.0	Stop PB		
I4.1	Hopper Vane		
I4.2	Glue PB		
I4.5	Missing Blanks		
I4.6	Missing Bundles		
I4.7	Inch PB		
I5.0	T. Loader Down Pos		
I5.1	T. Loader Up Pos		
I5.2	T. Loader Tray Pos		
I5.3	T.Loader Tray Finish		

I5.4	<i>T.Loader Sensor Tray</i>
I5.5	<i>Hopper Feed Level</i>
I5.6	<i>T. Loader Manual Up</i>
I5.7	<i>T. Loader M/A Switch</i>
<b>I6.0-I7.5</b>	
I6.0	<i>Post Filter Proxy</i>
I6.1	<i>Filler Belt Extend</i>
I6.2	<i>Filter Miss 2</i>
I6.3	<i>Miss 3 filters</i>
I6.4	<i>Loose End 2</i>
I6.5	<i>Loose End 3</i>
I6.6	<i>Emergency Stop 2</i>
I7.0	<i>T. Tray Full</i>
I7.1	<i>Post Stop Sealer</i>
I7.2	<i>Drum Transfer</i>
I7.3	<i>Watch Foil Cover</i>
I7.4	<i>Cigarette Jam Cover</i>
I7.5	<i>Door Loaders</i>
<b>I8.0-I9.7</b>	
I8.0	<i>Vane Hopper 1</i>
I8.1	<i>Vane Hopper 2</i>
I8.2	<i>Vane Hopper 3</i>
I8.3	<i>Vane Hopper 4</i>
I8.4	<i>Vane Hopper 5</i>
I8.5	<i>Vane Hopper 6</i>
I8.6	<i>Vane Hopper 7</i>
I8.7	<i>Vane Hopper 8</i>
I9.0	<i>Vane Hopper 9</i>
I9.1	<i>Vane Hopper 10</i>
I9.2	<i>Vane Hopper 11</i>
I9.3	<i>Vane Hopper 12</i>
I9.4	<i>Vane Hopper 13</i>
I9.5	<i>Vane Hopper 14</i>
I9.6	<i>Save Tray Sensor</i>

## 5. Shifts

By pressing the group of people icon button, the HMI screen will display the Shift menu. With easy navigation, Users can see information in the form of time, number of good products, rejected products and product percentages.

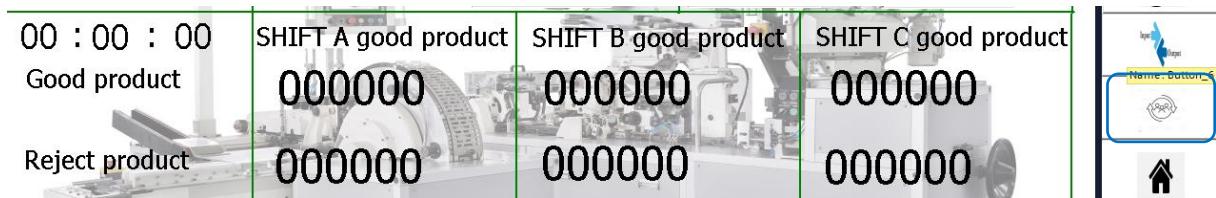


Figure 2.17 Shift Button

In the Shift menu display, showing the time schedule for shift A, shift B, and shift C, users can adjust the machine work schedule according to their needs. On this screen, users can also see the products produced in each shift, such as good product, rejected product, and product percentage.

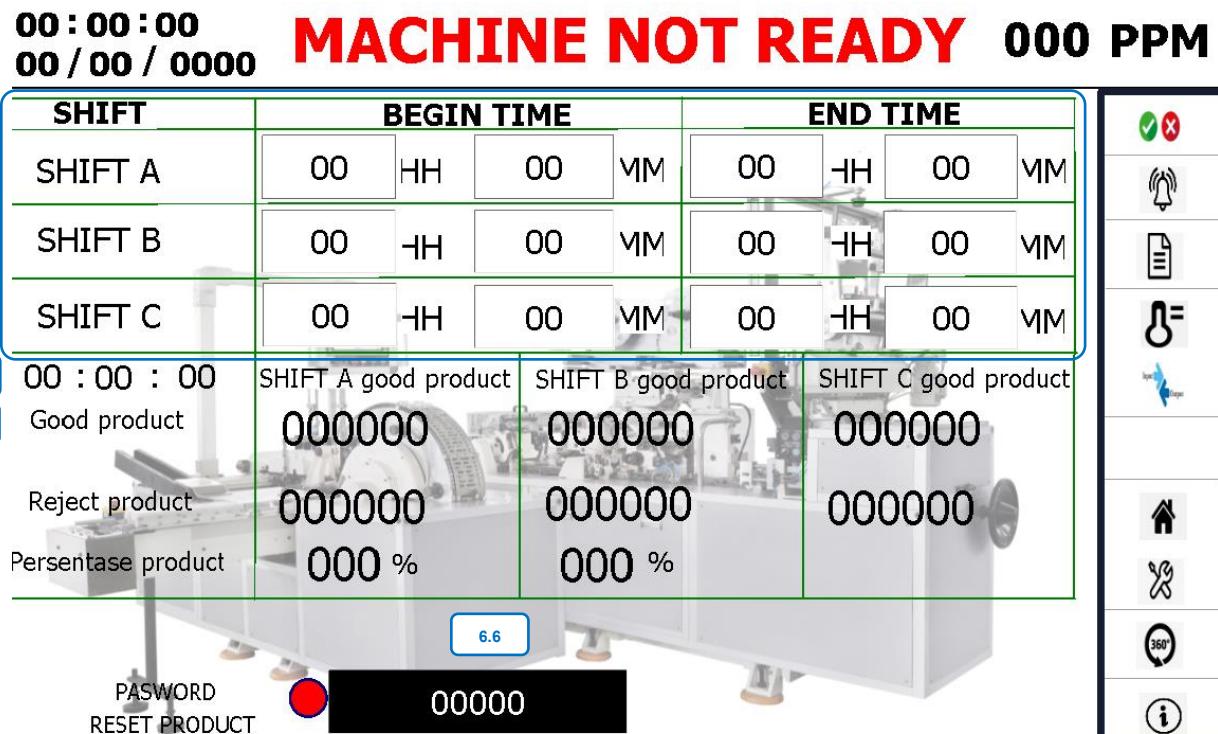


Figure 2.18 Shift Display

<b>Position Function</b>	<b>Description</b>
<i>Shifts</i>	
6.1	Setting the start and end times for each shift (shift A, shift B, and shift C).
6.2	Displays the actual running time for each shift (shift A, shift B, and shift C).
6.3	Displays the total number of good products produced in each shift (shift A, shift B, and shift C).
6.4	Displays the total number of rejected products produced in each shift (shift A, shift B, and shift C).
6.5	Displays the total number of products produced in percentage form (the total number of production results - rejected products).
6.6	Password to reorganize the product results report produced in each shift (shift A, shift B, and shift C).

## 6. Heater Settings

By pressing the temperature icon shaped button, the screen will switch to the Heater Settings menu display. With easy navigation, Users can view and set the temperature according to their needs.



Figure 2.19 Heater Setting Button

On the Heater Settings screen, users can easily activate and deactivate the heater, there are 4 different heaters that can be controlled, namely right 1, right 2, left 1 and left 2.

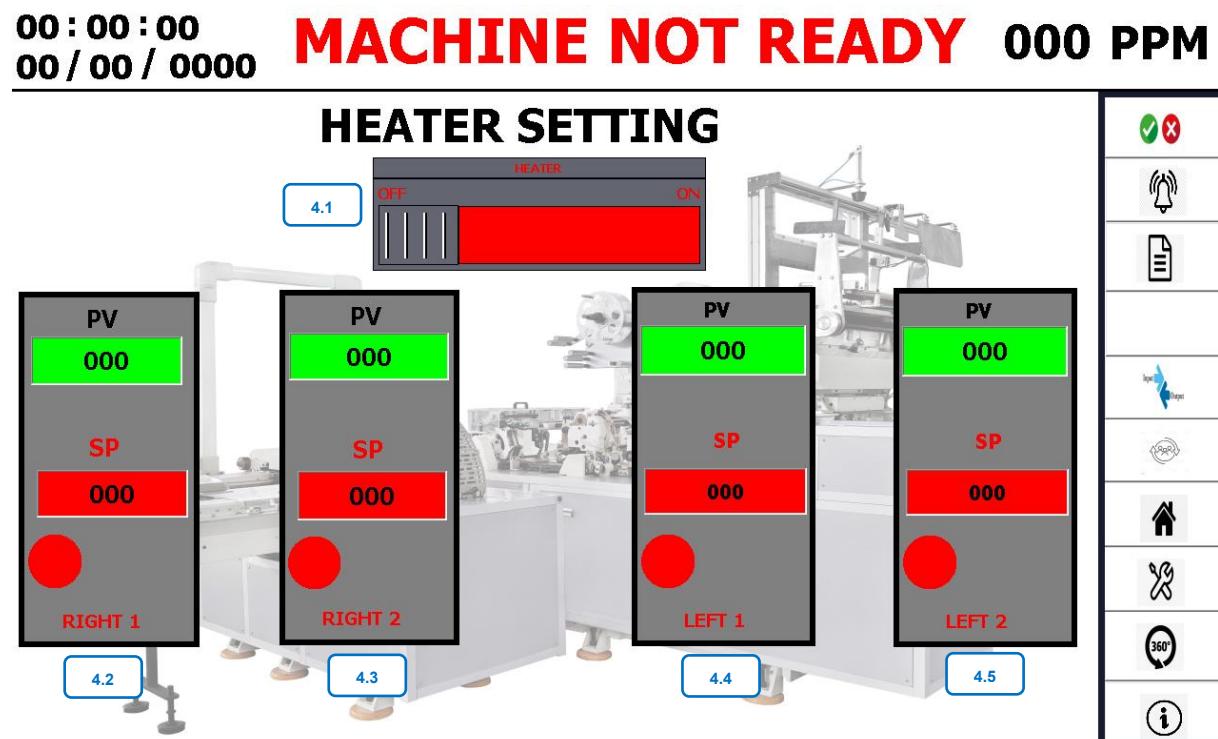


Figure 2.20 Heater Settings Display

Position Function	Description
<i>Heater Settings</i>	
4.1	The button functions to activate or deactivate the heater on the machine.



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<b>NOTE</b>	PV : Point Value (actual value that is being read in real-time). SP: Set Point (setting value that must be achieved by the point value). ● : Heater is not on. ● : Heater is on.
4.2	Displays the temperature and changes the temperature setting value on the heater at the top-right.
4.3	Displays the temperature and changes the temperature on the heater at the bottom-right.
4.4	Displays the temperature and changes the temperature on the heater at the top-left.
4.5	Displays the temperature and changes the temperature on the heater at the bottom-left.

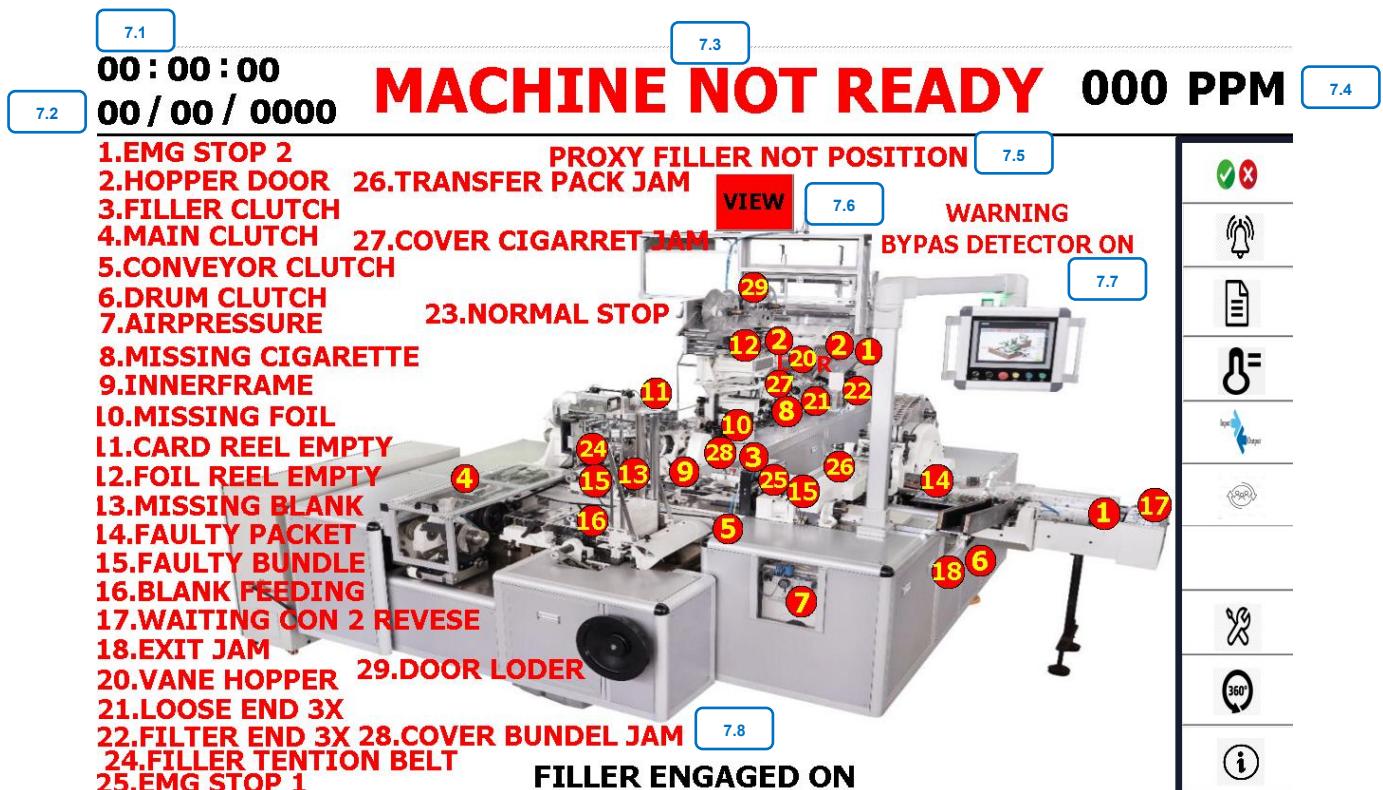
## 7. Home Screen

By pressing the house icon shaped button, the screen will switch to the Home menu display. With easy navigation, users can view information on machine parts.



Figure 2.21 Home Screen Button

On the Home screen, when the machine has an error, the screen will display a complete description of the error that occurred and its position on the machine. The HLP-200 machine has 27 different types of errors, each of which is recognized and can be clearly identified by the system.





Position Function	Description
<b>HOME SCREEN</b>	
7.1	Displays the current time (HH:MM:SS).
7.2	Displays the current date (DD/MM/YYYY).
7.3	States the status of the machine.
7.4	Displays the number of cigarette speeds packed in PPM (packs per minute).
7.5	Displays information that the proxy filler is not in the correct position.
7.6	The button functions to enter the screen which will display information regarding the procedure for activating the clutch filler.
7.7	Displays a warning that the entire sensor system is operational.
7.8	Displays information that the filler sensor has been activated.

00 : 00 : 00  
00 / 00 / 0000

**MACHINE READY**

000 PPM



Figure 2.23 Home Screen Display in Machine Ready Position

On the Home screen, when the machine is ready (no errors), the screen will not display a description of the error that occurred and its position on the machine. In this condition, the machine is ready to run.

00 : 00 : 00  
00 / 00 / 0000

# MACHINE NOT READY

000 PPM



Figure 2.24 The "View" Screen Displays On The Home Screen

There are 3 indications of the condition of the HLP-200 machine that appear on the HMI screen. If there are parts of the machine that are not ready, the HMI screen will display the words "MACHINE NOT READY". If all parts of the machine are ready, the HMI screen will display the words "MACHINE READY". If the machine is running, the HMI screen will display the words "MACHINE RUNNING".

# MACHINE NOT READY

Figure 2.25 Machine Not Ready

# MACHINE READY

Figure 2.26 Machine Ready

# MACHINE RUNNING

Figure 2.27 Machine Running

## 8. Settings

By pressing the wrench and screwdriver icon button, the screen will display the settings menu. With easy navigation, Users can view and manage the system according to their needs.



Figure 2.28 Settings Button

On the Settings screen, users can set various settings related to machine operation, this includes settings such as main motor, hopper motor, tray loader, manual switch function, and oil settings. Users can adjust the settings according to different working conditions.

**00 : 00 : 00  
00 / 00 / 0000      MACHINE NOT READY      000 PPM**

## SETTING

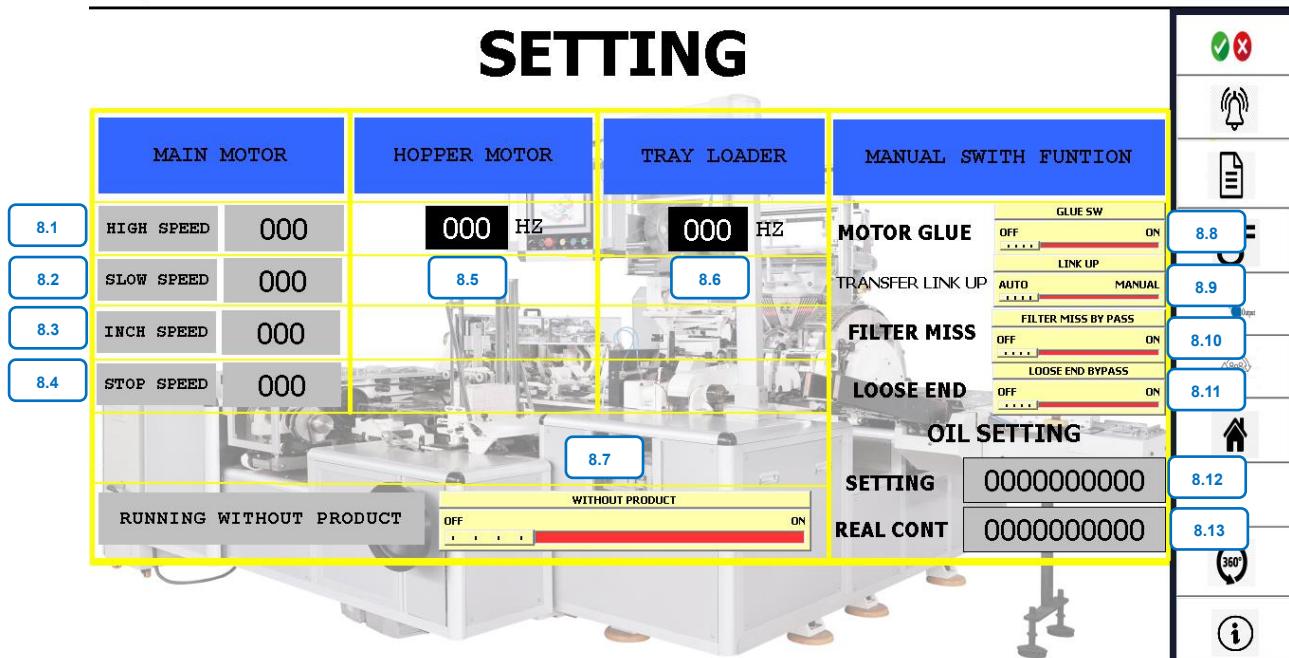


Figure 2.29 Display Settings Screen

Position Function	Description
<i>PLAYING A MOTORCYCLE</i>	
8.1	Setting engine speed at high speed conditions (Maximum 200ppm).
8.2	Setting engine speed at low speed conditions.
8.3	Machine speed setting when the Inch button is pressed.
8.4	Setting engine speed when Stop speed is pressed.
8.5	Hopper Motor speed setting to lower cigarettes.
8.6	Tray Loader speed settings for raising/lowering the tray.
8.7	The setting used when the machine will be run without the product, when this setting is activated the entire sensor system will not function.
8.8	Settings to enable/disable Motor Glue.
8.9	Manual/automatic Transfer Link Up settings.
8.10	Settings to enable/disable Filter miss inspection.
8.11	Settings to enable/disable Loose end inspection.
8.12	Setting the calculation for the quantity of cigarette packages for the oil that will be injected into the machine. When the machine produces a predetermined number of packaged cigarettes, oil will be injected into the machine.
8.13	Displays the calculation (counter) of cigarette packaging. If the production number of packaged cigarettes reaches the target that has been set, oil will be injected into the machine.

## 9. CAM Parameters

By pressing the 360° icon button, the screen will display the HLP2-CAM PARAMETER menu. With easy navigation, Users can view and adjust the degrees on the system according to their needs.



Figure 2.30 Cam Parameters Button

On the Cam Parameters screen the user can adjust the degrees, there are several types of Cam Parameters, such as Loose End/Filter, Clock Register, Bundle, Innerframe, Ejection, Missing Cigarette, Missing Blank, Feeding Blank, and Blank Cancel. The display shows a degree called (Cam Degree).

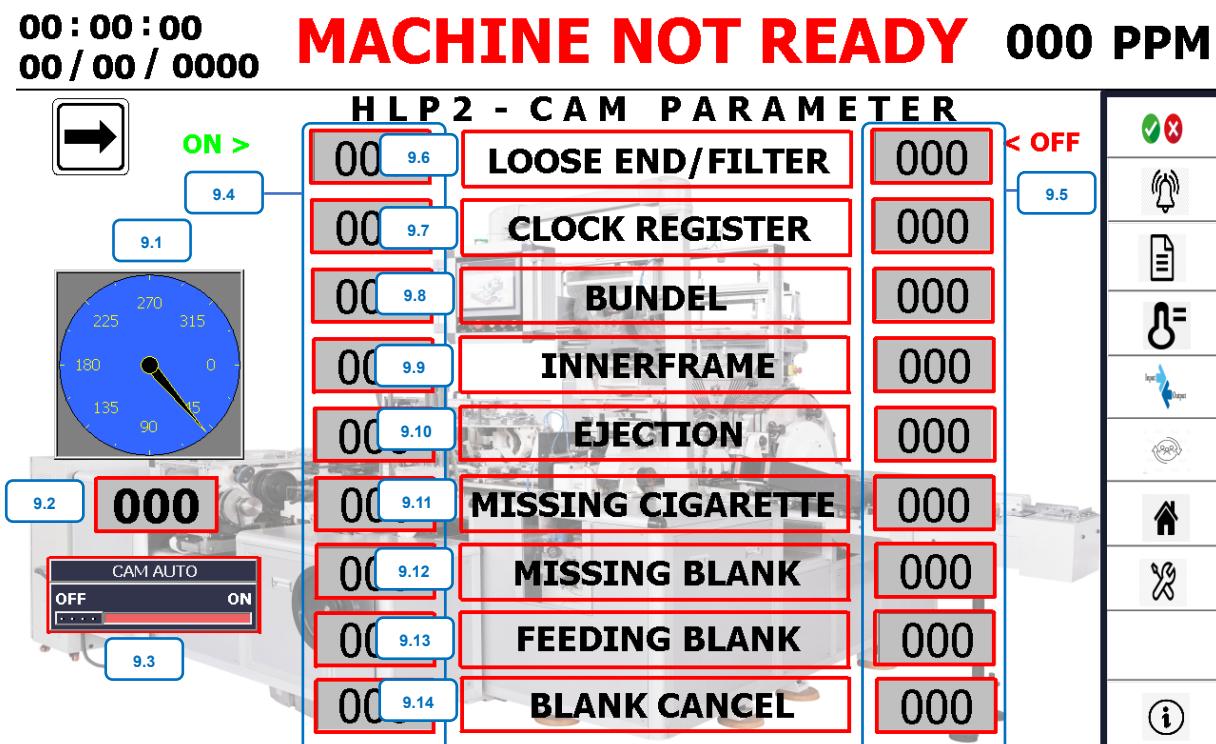


Figure 2.31 Screen Display 1 Cam Parameters

00 : 00 : 00  
00 / 00 / 0000

# MACHINE NOT READY 000 PPM

## HLP2 - CAM PARAMETER

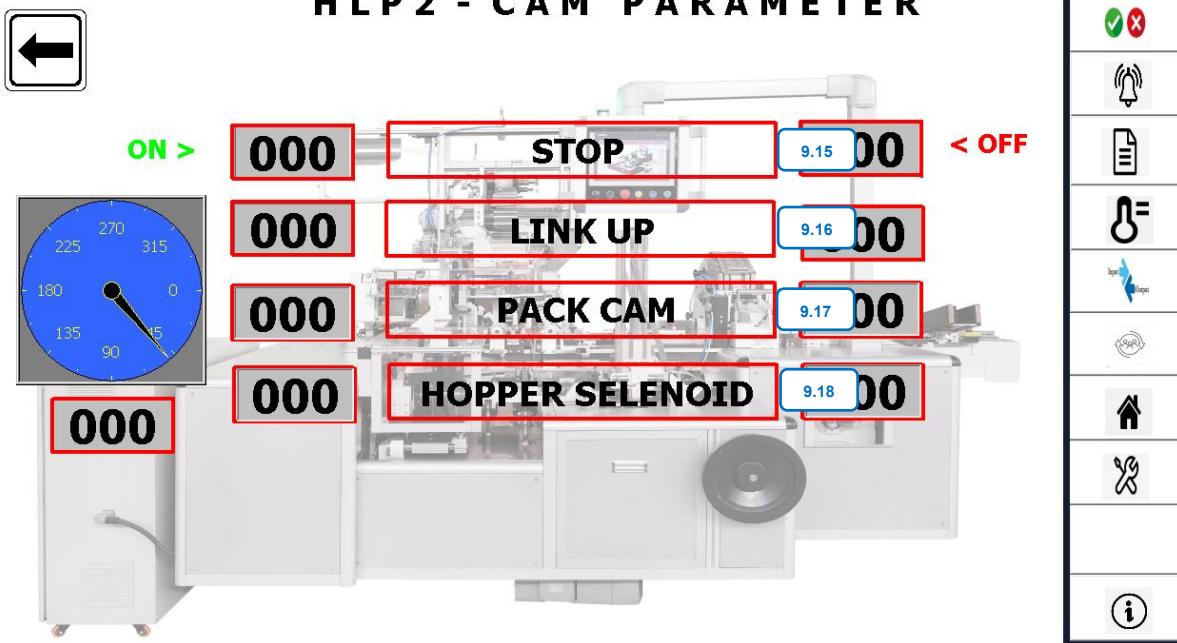


Figure 2.32 Screen Display 2 Cam Parameters

Position Function	Description
<i>CAM Parameters</i>	
9.1	Displays the direction of the position in degrees according to the running of the engine to identify all cam parameters.
9.2	Displays the actual value of degrees according to the encoder according to the running of the machine to identify all Cam parameters.
9.3	Button to set Cam mode parameters which are carried out automatically. Switch to select to turn on/off auto Cam parameter mode.
9.4	Setting the degree parameter value which is used as a benchmark for each sensor is on.
9.5	Setting the degree parameter value which is used as a benchmark for each sensor is off.
9.6	Identify cigarettes with incomplete tobacco filling or lacking a filter.
9.7	Identify the operation of the machine in packaging cigarettes.
9.8	Identify the entire cigarette package.

9.9	Identify the inner paper packaging cigarettes.
9.10	Identify cigarette rejects that unqualified.
9.11	Identify that the number of cigarettes is unqualified.
9.12	Identify out-of-place cigarette cartons.
9.13	Identify missing or duplicate cigarette cartons when packed.
9.14	Identify cigarette cartons are not utilized for packaging because cigarettes is unqualified.
9.15	Identifying the cessation of cigarette packaging production.
9.16	Identifying the results of the packaged cigarettes will be proceed on another machine/already in the final process.
9.17	Identify product results from packaged cigarettes.
9.18	Identify the number of cigarettes according to standards.



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The main function of this cam is to ensure that the signal from the sensor is only in a certain position. The degree value obtained through the encoder with a count every  $360^\circ$  is 1 pack of cigarettes on the path. This is done to prevent the sensor from detecting things outside of the sensor's duties. If the degree value is not adjusted, it can result in incorrect sensor readings resulting in executions that should not occur.

**EXAMPLE :**

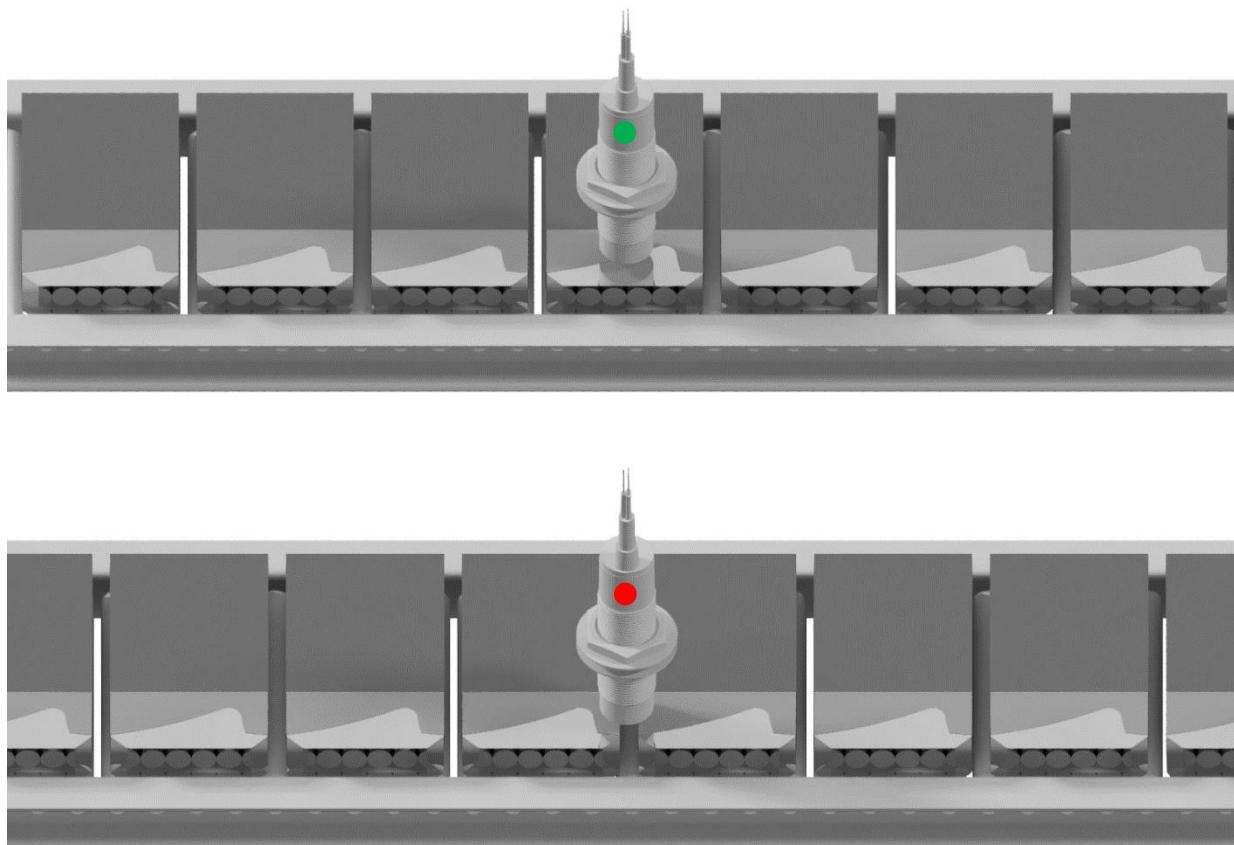


Figure 2.33 Example Of Applying Cam To Sensors

In the example it is shown that by setting the correct cam parameter value, the sensor will only give a signal when the sensor is aligned with the foil on each cigarette pack in the path. When the foil part of the cigarette pack has passed the sensor, the signal from the sensor will not be executed.

There are 2 ways to set the 0 degree point of the Cam Parameter:

1. Through the lose end sensor and lose filter.
- Make sure the filler is on and make sure the lose end and lose filter sensors are not disabled (on the Settings screen).

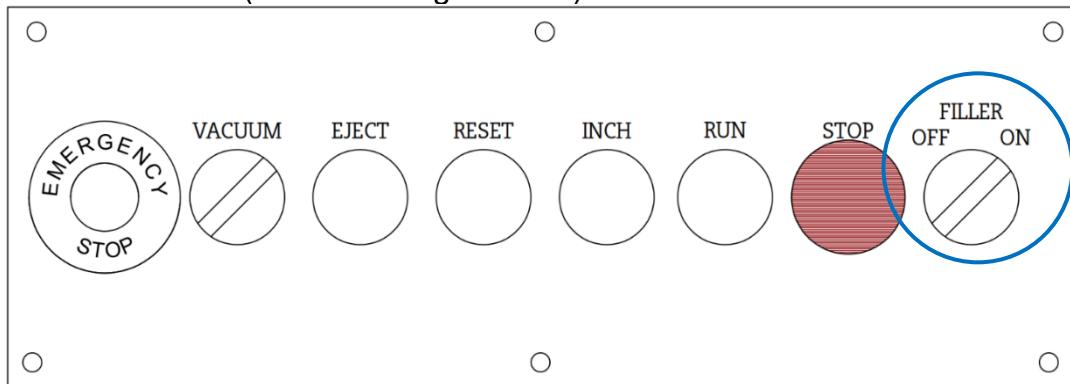


Figure 2.34 Control Panel

- Inch until the position of the lose end sensor and lose filter right on the cigarette that must be detected.



Figure 2.35 Sensor lose end and lose filter

- Pay attention to the fiber amplifier on the panel box. Make sure the fiber amplifier gets the signal at the highest level.

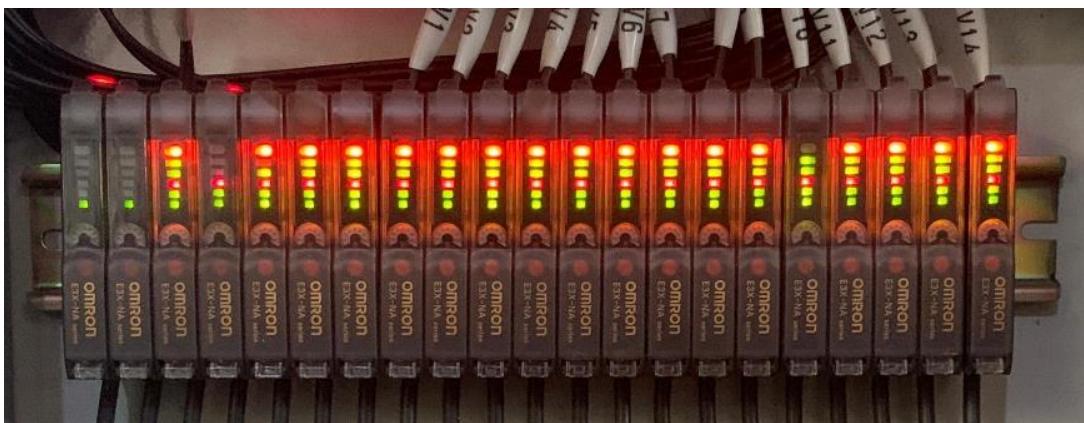


Figure 2.36 Fiber Amplifier



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- Adjust the position of the encoder by rotating it clockwise to  $0^\circ$  at the degree cam.



Figure 2.37 Degree Cam Encoder

## 2. Through pocket movement.



Figure 2.38 Packer machine HLP-200

In this way, the machine is not required the filler is on. Do inch on the machine slowly until it looks pocket starts to move. Because the movement of the pocket is not constant always moving, there is time for the pocket to stop. After stopping, the pocket will move again. The initiation of the movement of the pocket is used as a benchmark point of  $0^\circ$  cam degree.

## 10. Information

By pressing the “i” icon button, the HMI screen will display the HLP2-MACHINE INFORMATION menu. With easy navigation, users can see and find out information from this machine.



Figure 2.39 Information Button

On the information screen, users can easily find out the information on the machine such as Machine Name, Machine Serial No, Version Program Number and Manufacturing Date of the machine.

**00 : 00 : 00  
00 / 00 / 0000      MACHINE NOT READY    000 PPM**

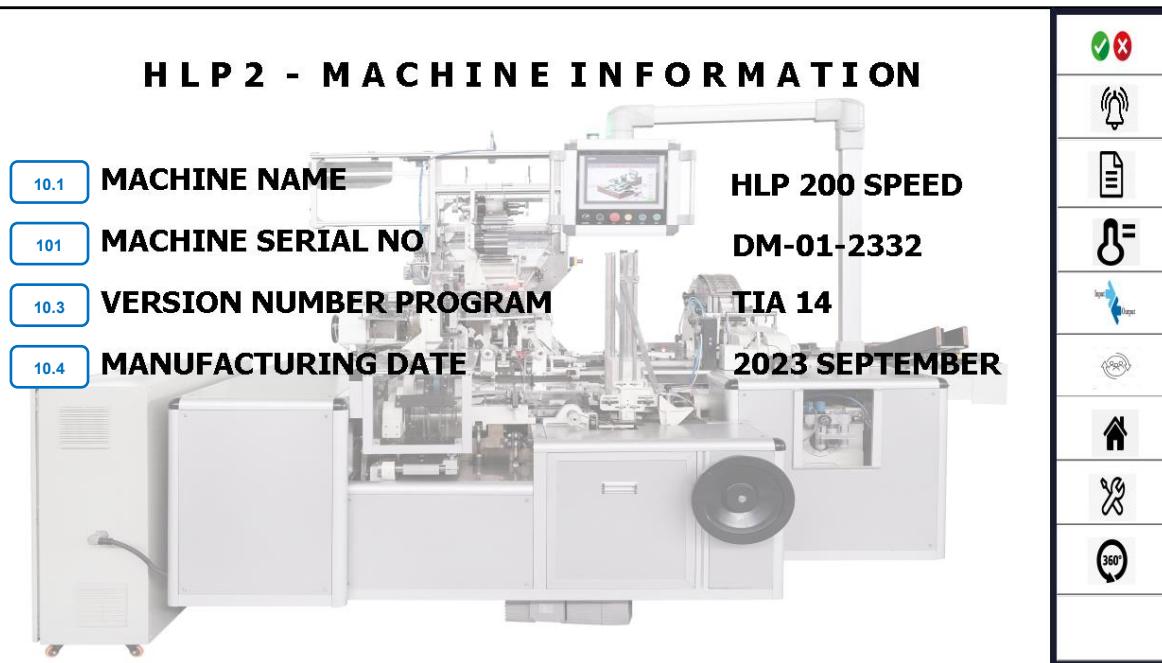


Figure 2.40 Information Screen Display

Position Function	Description
<b>MACHINE INFORMATION</b>	
10.1	Displays information about the machine name.
10.2	Displays information about the machine serial number.



10.3	Displays information about program version used on the machine.
10.4	Displays information about machine build time.



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## CLOSING

Thus, we closed the HLP-200 cigarette packaging machine manual book as a complete source of information to ensure efficient operations and optimal production results. We hope that this guide provides a clear and in-depth understanding for users to be able to manage this machine well.

For further questions or technical assistance, please contact our customer service team. Thank you for your trust in choosing our products, and we hope that the HLP-200 cigarette packaging machine will make a positive contribution to the smooth running of your business.