



**MAZZONI LB**  
SINCE 1946

**JOB 008008**

**C.I.L. – CAMEROUN**

**Batch Saponification  
SB-CR Plant**

## **OPERATOR PANEL OPERATING MANUAL**

2						
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## **SUMMARY:**

### **1. System architecture**

#### **1.1 Hardware Configuration**

#### **1.2 System Functions**

#### **1.3 Start-up and shutdown Procedures**

#### **1.4 Password levels**

### **2. HMI pages description**

## 1. System architecture

The architecture of the system consists of one **PLC** (control system) and one **Operator Panel** (monitoring and command/drive system).

The PLC is connected to the operator panel by local Ethernet network

The operator panel manages the monitoring and command functions of all the zones of the system: i.e. the operator supervises the system operation in real-time and in the same way commands valves, pumps, motors and sequences according to the production cycles.

### 1.1 Hardware Configuration

Here below the characteristics of the supervisor system

#### Operator Panel

- Allen Bradley PanelView Plus 600, 6" TOUCH
- Monitor 5.7" TFT LCD, 320x240 pixel, 18bit color graphics
- Interface connection Ethernet
- Power supply, 24Vdc

Here below the MPI network configuration:

- address PLC: 192.168.10.101
- address Operator Panel: 192.168.10.201
  
- Transmission rate 10/100 Mbps Full Duplex (Auto Negotiate)

## 1.2 System Functions

Main functions of PLC and supervisor are listed here below:

Functions assigned to the PLC

- acquisition and management of digit signals
- acquisition and management of analogue signals
- management and command: motors, pumps and valves.
- alarm management
- control and command of the production cycles
- management of the communication with supervisor

Functions assigned to the supervision system

- system monitoring
- manual drives (commands)
- regulation setting and control
- visualization and management of the existing alarms
- management and control of process parameters

## 1.3 Start-up and shutdown Procedures

At power-up the system automatically start the supervisor system.

At power-down the system automatically stop the supervisor system.

## 1.4 Password levels

The system envisages four different access levels: Factory, Maintenance and User

User of Group "Factory" has all access keys: from A to P

User of Group "Maintenance" has access keys A-B-C-D-E-F

User of Group "User" has access keys A-B-C

User of Group "Default" has access key P (base level)

The password for the Factory level will be delivered separately

User	Group	password
SETUP	Factory	xxxxxx
MAZZONILB	Maintenance	21052
MAZZONI	Users	21052
User	Users	123456

## 2. SUPERVISOR PAGES DESCRIPTION

### MAIN

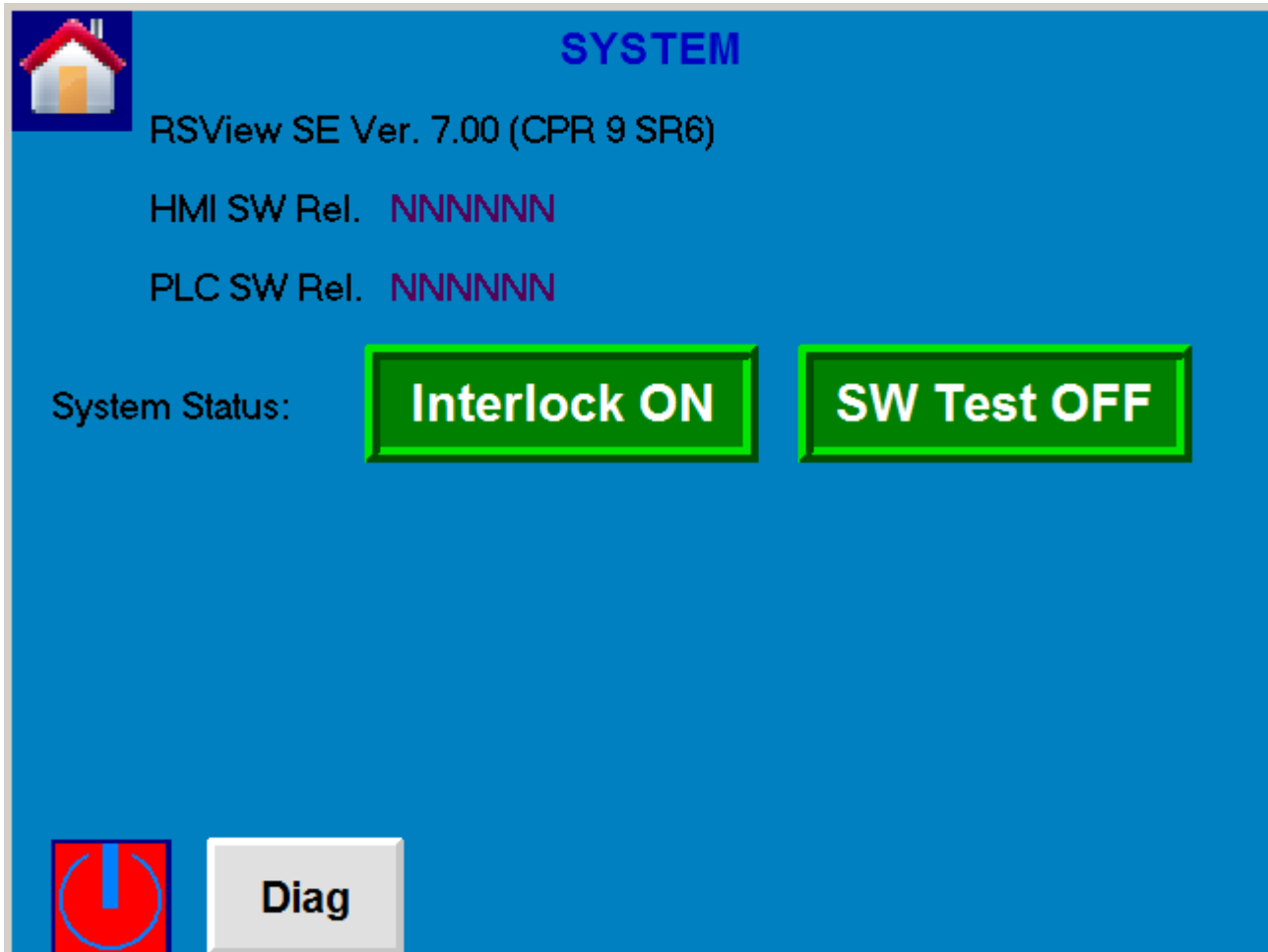


This page appears when the operator panel is switched on.

It contains MAZZONI LB logo and push the it to go to the plant managing pages.

On the bottom first icon: to go to the HMI system page

On the bottom second icon: to go to language selection page

**HMI SYSTEM**

This page opens from the Main menu by "Monitor" icon

It contains the reference to the HMI development software as well as the HMI and PLC software releases.

It shows if software interlocks are ON or OFF and if the software simulation is ON or OFF

**ATTENTION:**

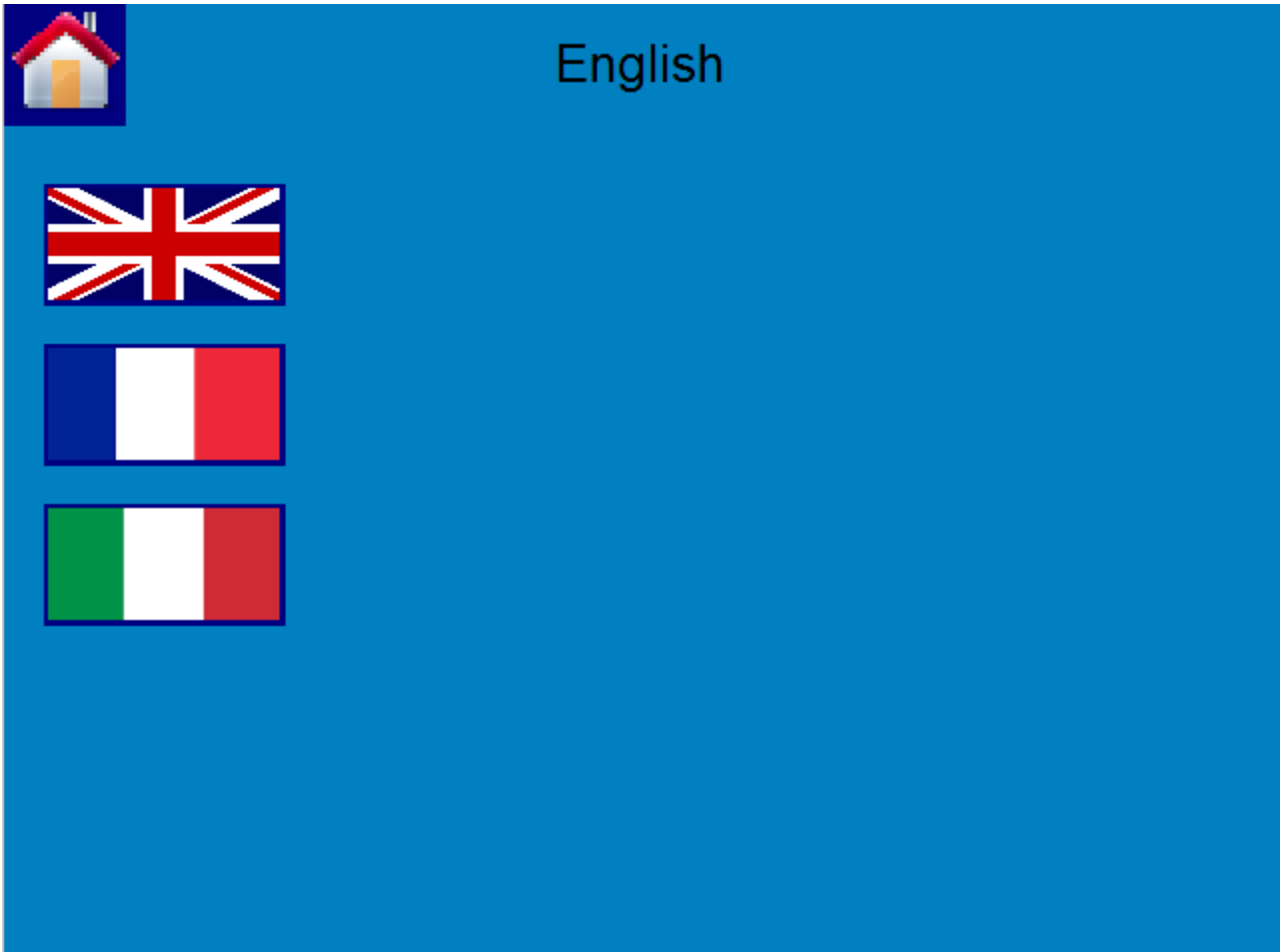
**These functions must never be activated (Red colour) during the standard running of the plant because they are potentially dangerous.**

**They can be activated merely during the phase of plant maintenance in Mazzoni LB staff presence and in any case subject to our authorization.**

On the bottom first icon: to go to the HMI operating system page (shut down application)

On the bottom second icon: to go to HMI diagnostic page

On the Top "Home" icon: to go back to Main page

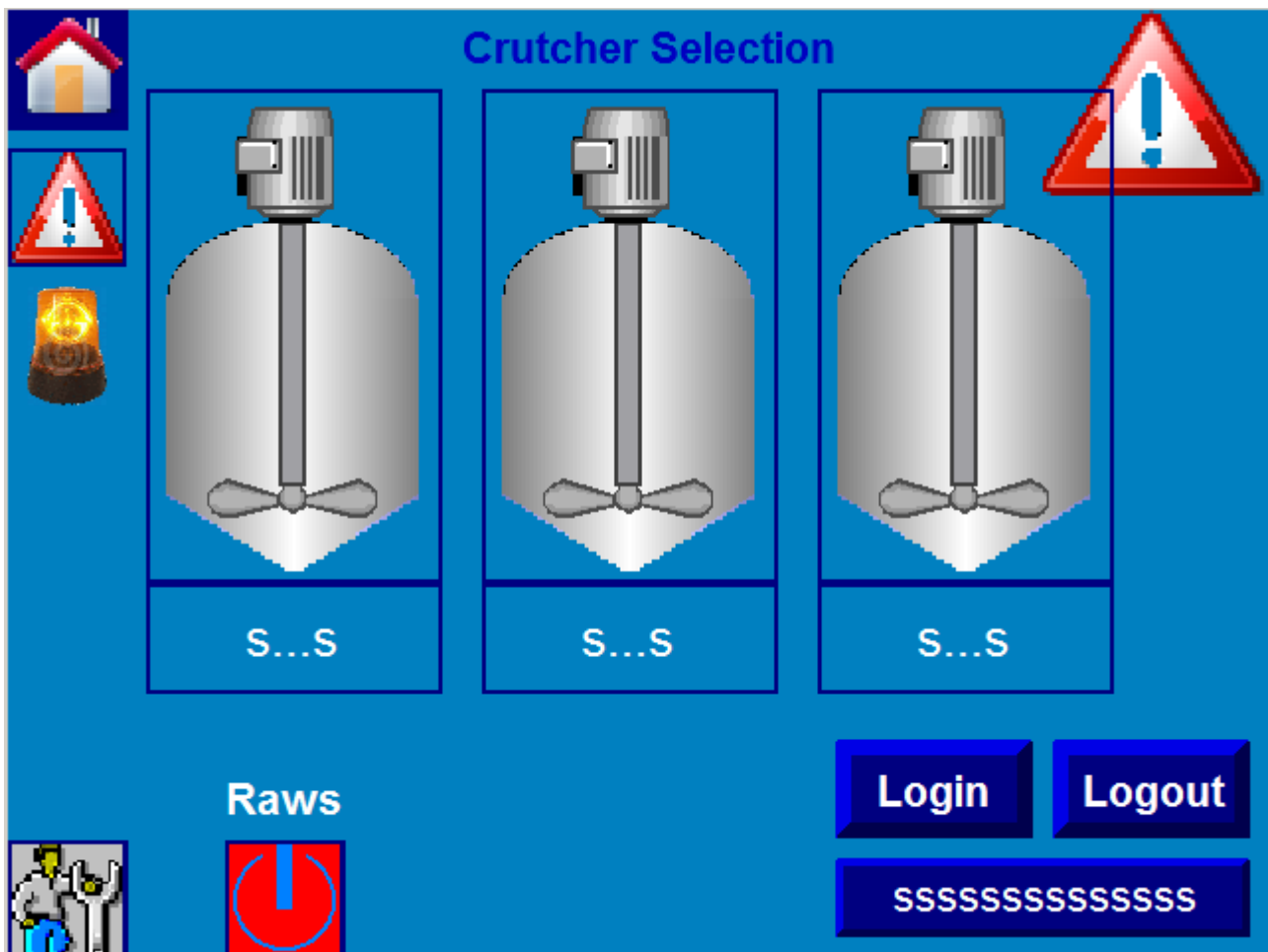
**LANGUAGE SELECTION**

This page opens from the Main menu by "Flags" icon

Here it is possible to select the HMI language by hit the relevant flag.

On the Top "Home" icon: to go back to Main page





This page opens from the Main menu by "Mazzoni LB Logo" icon

Here it is possible to select the crutcher that has to be used and change the relevant name.  
Hit the "S...S" field and insert the wished name



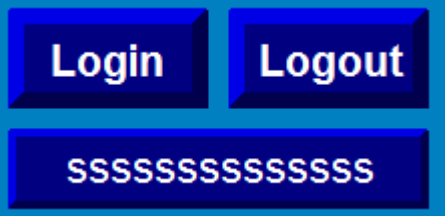
**ATTENTION:**


**If Interlocks are OFF or the software simulation is ON on the top right of the page appears a warning icon**

**These functions must never be activated during the standard running of the plant because they are potentially dangerous.**

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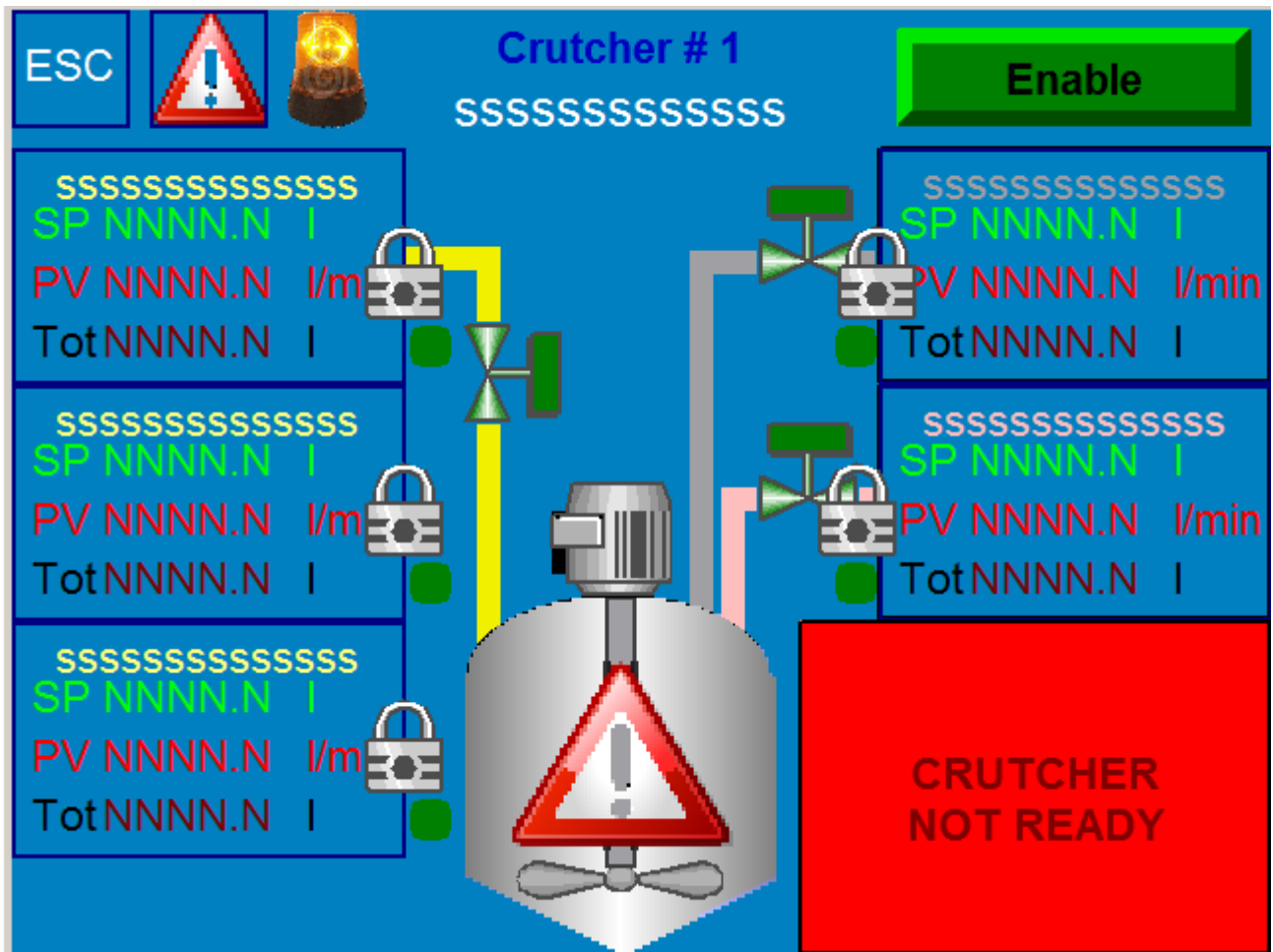
## OPERATOR PANEL OPERATING MANUAL, REV 0

	<p>On the bottom right there are the Login and Logout command for access to the system authorizations levels: Factory, Maintenance and User. The name of the user logged-in is shown on the bottom field</p>
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	<p>On the Top "Home" icon: to go back to Main page</p> <p>On the Top "Alarm" icon: to go to the Alarm page</p> <p>On the Top "Lamps" icon appears (flashing): it means that an alarm is present</p> <p>On the Bottom "Maintenance" icon: to go to the plant data configuration page</p> <p>On the Bottom "Raws Reset" icon: to go to the totalizers reset page</p>
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On the bottom first icon: to go to the HMI operating system page (shut down application)

On the bottom second icon: to go to HMI diagnostic page


**CRUTCHER PAGE**

This page opens from the Layout page by "Crutcher" icon

Here it is possible to manage the crutcher that has to be used

	<p><b>ATTENTION:</b></p> <p>If Interlocks are OFF or the software simulation is ON on the top right of the page appears a warning icon</p> <p>These functions must never be activated during the standard running of the plant because they are potentially dangerous.</p> <p>They can be activated merely during the phase of plant maintenance in Mazzoni LB staff presence and in any case subject to our authorization</p>
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## OPERATOR PANEL OPERATING MANUAL, REV 0

	<p>On the Top "ESC" icon: to go back to Layout page</p> <p>On the Top "Alarm" icon: to go to the Alarm page</p> <p>On the Top "Lamps" icon appears (flashing): it means that an alarm is present</p>
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For any raw material it is possible to check the Set Point "SP", the actual flow rate "PV" and the actual totalized quantity to the crutcher."Tot"

A green/red circle shows if the relevant pump is running (green) or if it is in stop (red)

A Lock shows if the relevant pump is locked by the software interlocks and can not runs

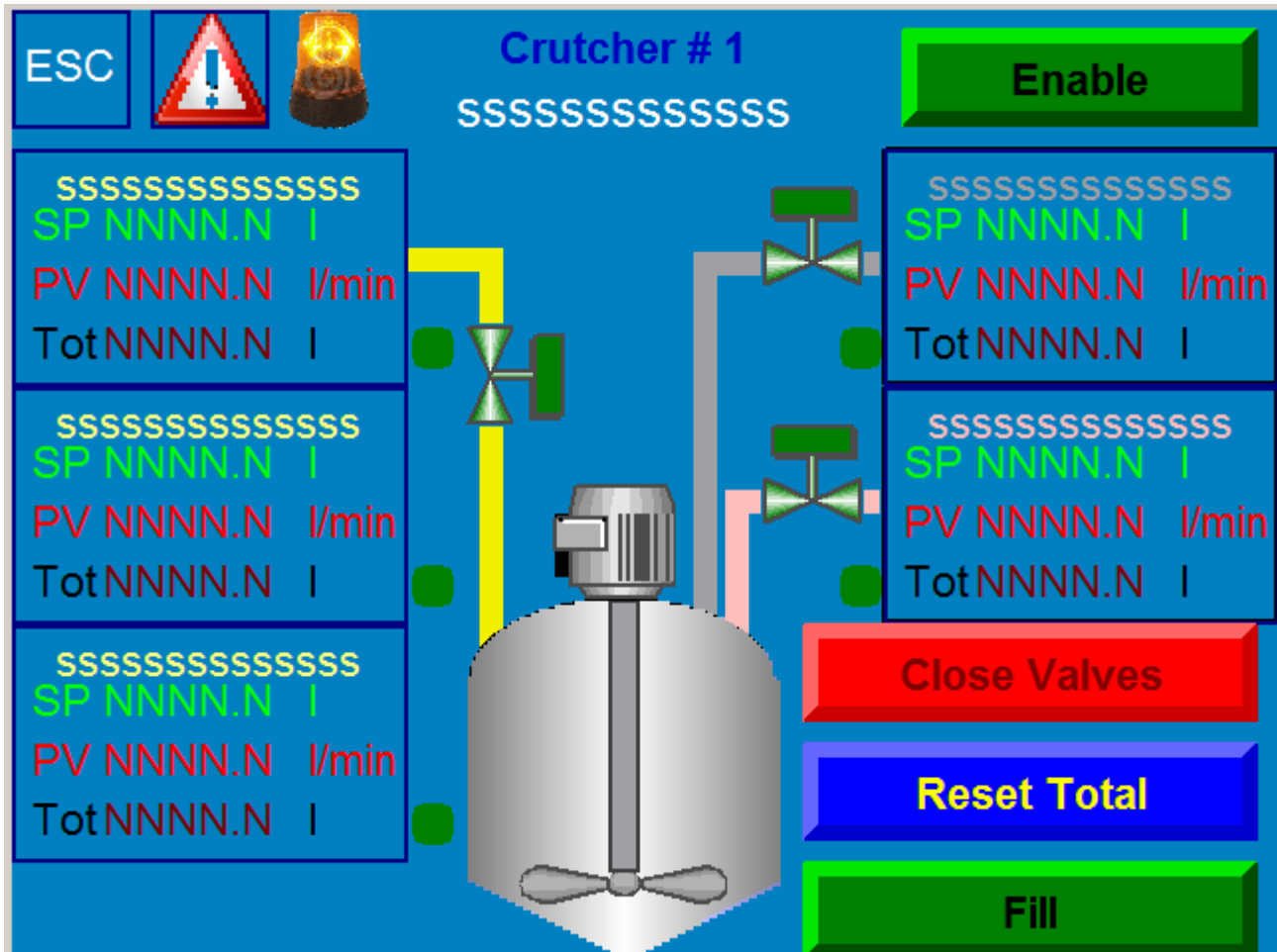
A green/red valve shows if the relevant valve is open (green) or if it is closed (red)

The Crutcher motor green/red shows if the relevant motor is running (green) or if it is in stop (red)

## OPERATOR PANEL OPERATING MANUAL, REV 0

In order to enable the crutcher to operate hit on the Top right the green "Enable" pushbutton

This function works only if no motor is running because this means that an other cruthcer is in filling mode. When this command is executed than the relevant valves are automatically opened and the "Crutcher Not Ready" signal disappears.



On the Bottom right the "Close Valves" command close the three inlet valves

On the Bottom right the "Reset Total" command Reset all the values totalized in the last crutcher fill sequence. **Because the plant section to fill is the same for all the crutchers the totalized value shown refers indiscriminately to all crutchers and MUST be reset before the Fill command execution unless a partial charge is needed**

On the Bottom right the "Fill" command start all the feeding pumps that will be automatically stopped when the relevant Set Point is reached. (Than the pump is locked stop)

For all raw materials it is possible to manually start/stop the pump and to set the wished Set Point

Hit on the relevant raw to open the popup command window

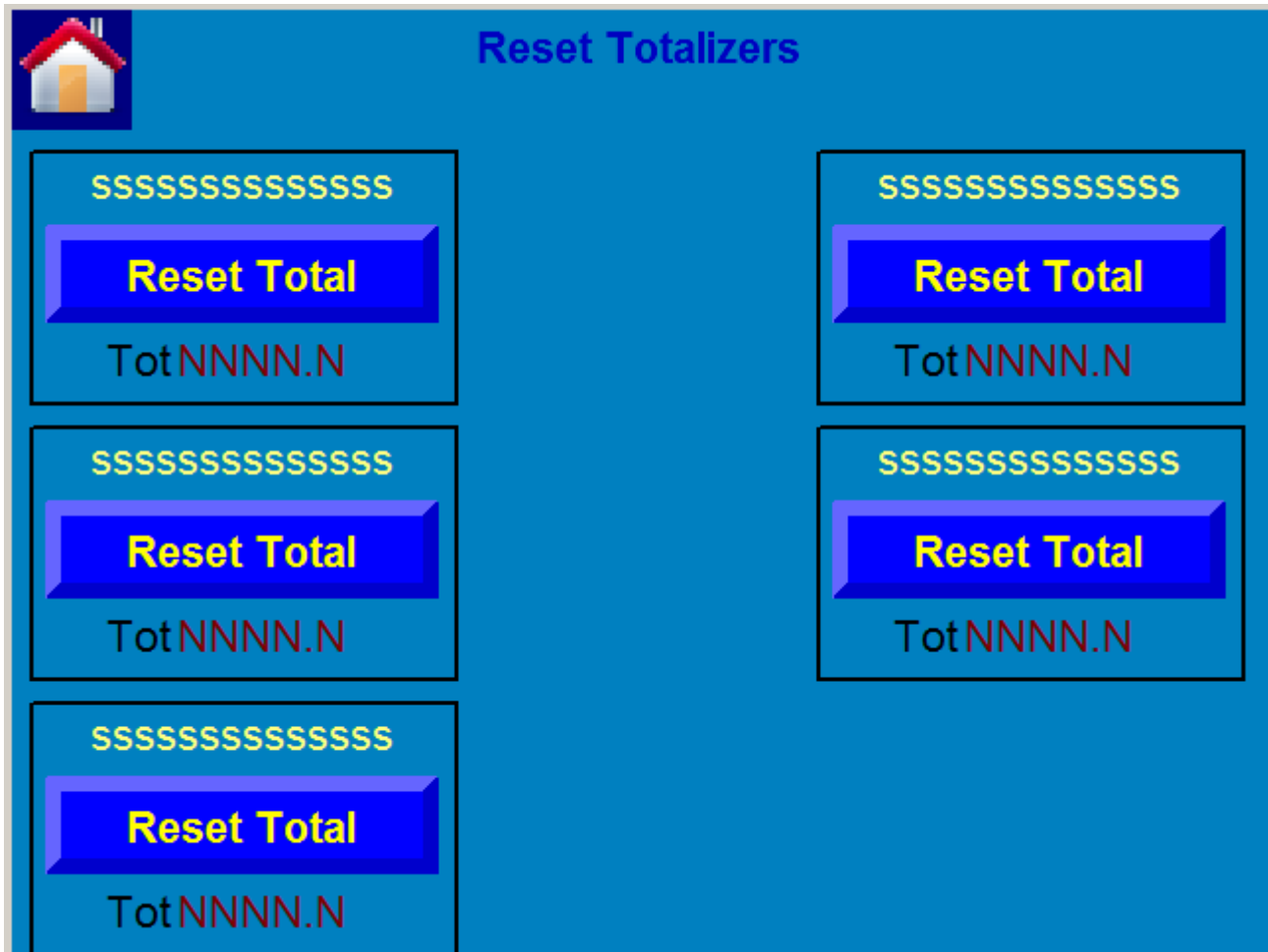


**ALARM PAGE**

This page opens from the Layout or from crutcher page by "Alarm" icon

Here it is possible to check and to manage (ACK) the alarms and to switch off the horn by the Top right lamp command.

On the Top "ESC" icon: to go back to previous page

**RESET TOTALIZERS PAGE**

This page opens from the Layout page by " Raws Reset " icon

Here it is possible to reset manually one by one the raw materials totalizers

On the Top "Home" icon: to go back to Layout page

**MAINTENANCE PAGES**

Data	
S...S	FIQ #00 ###.## I*Pulse
S...S	FIQ #01 ###.## I*Pulse
S...S	FIQ #02 ###.## I*Pulse
S...S	FIQ #03 ###.## I*Pulse
S...S	FIQ #04 ###.## I*Pulse

This page opens from the Layout page by " Maintenance" icon

Here it is possible to change the name of the raw materials.

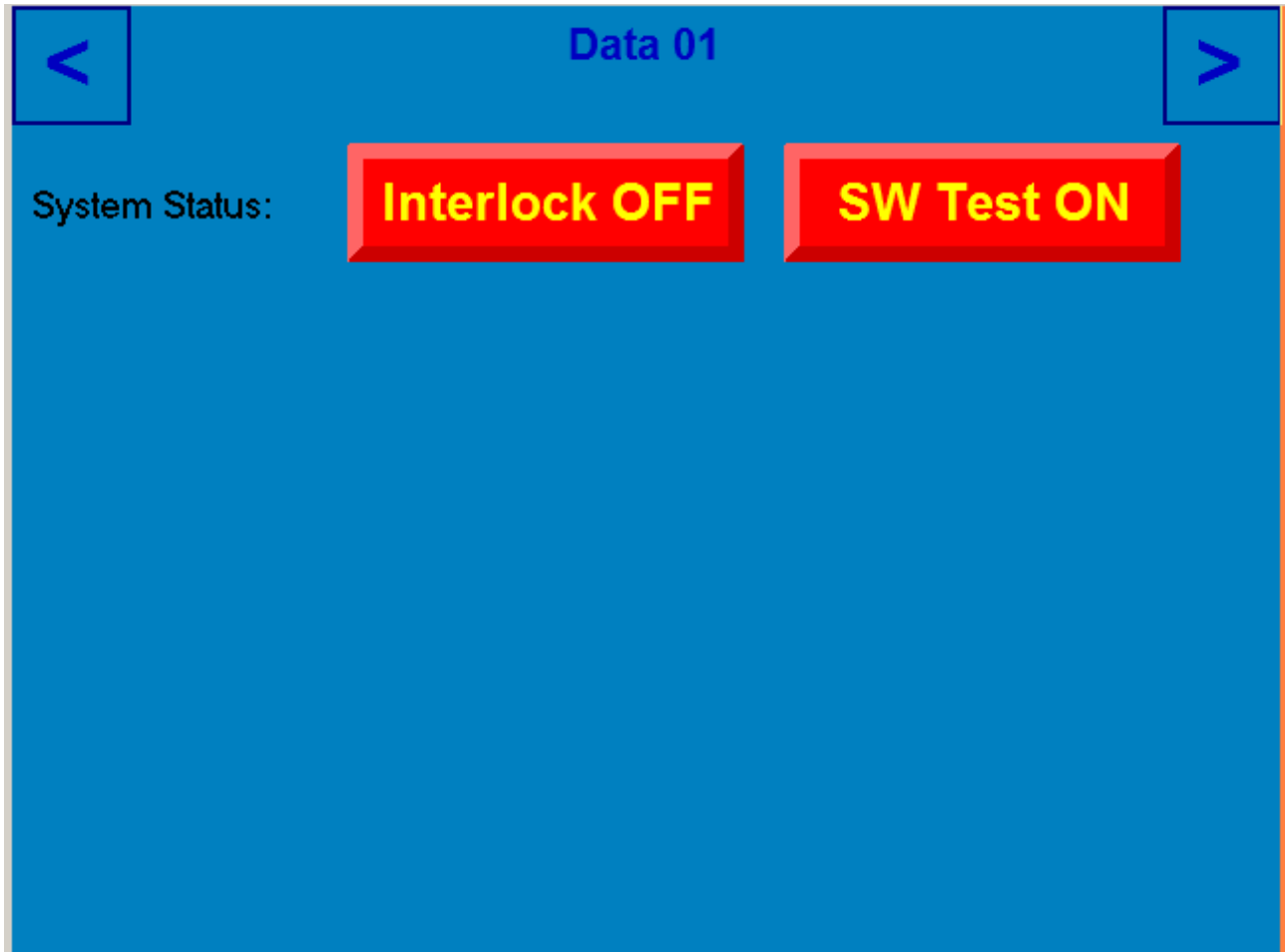
Hit the "S...S" field and insert the wished name

Here it is possible to set the liter per pulse coming from the flow meter

On the Top "Home" icon: to go back to Layout page

On the Top ">" icon: to go to next page





Here it is possible to change the CONFIGURATION of the plant functioning.

- SW Test ON/OFF : activate a virtual feedback for the motors and valves limit switches.
- Interlock ON/OFF : enable / disable all the interlock existing.

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On the Top "<" icon: to go to previous page

On the Top ">" icon: to go to next page