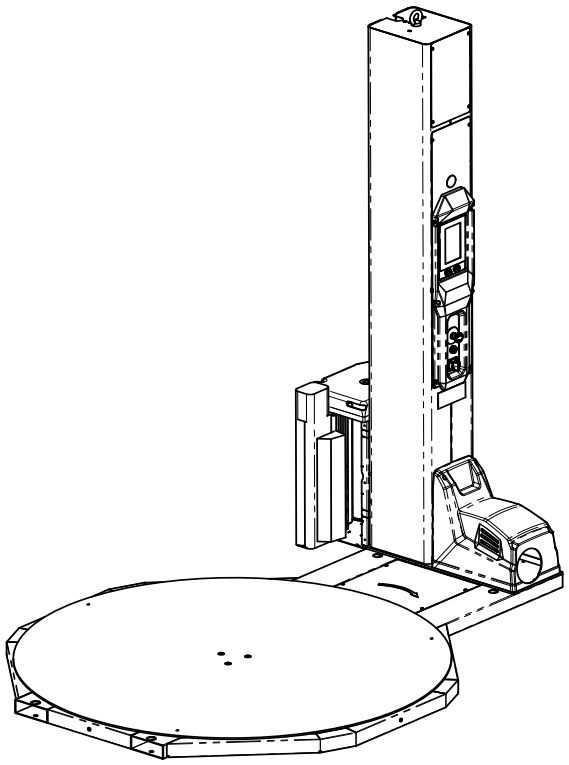
FROMM | WRAPPING SOLUTIONS

Rotary Table

FS 2000

Display Operator Panel

Translation of the original instructions



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Rev.1 18/07/2023

GENERAL INFORMATION

PURPOSE OF THE DOCUMENT

This manual is to be considered an additional document to the Use and Maintenance Manual of the machine.

WARNING

Reading and understanding this document is not sufficient to use the machine. You must first read and understand the User and Maintenance Manual provided with the machine.

The purpose of this manual is to train and instruct the machine operator in the use of the operator panel, specifically for the functions within their competence.

UPDATES

In this document all the pages of the operator panel are illustrated according to the factory version. Any inconsistencies between what is written in the manual and the actual operation of the software can be attributed to a version of the same prior to preparation of the manual or to a manual pending adaptation to changes made to the software.

Depending on the kits or devices with which the machine is equipped, there may be differences in some texts or illustrations without this resulting in disputes.

INFORMATION

If the differences between manual and actual operation of the software are significant, contact the Manufacturer's Assistance Service.

INFORMATION

To check the version of the software in your possession, contact the After-Sales Service with the serial number of the machine or take note of the abbreviation that appears on the electronic card at the time of power up.

GENERAL DESCRIPTION

The operator panel software is designed and built to manage and control the functions of the machine on which it is installed.

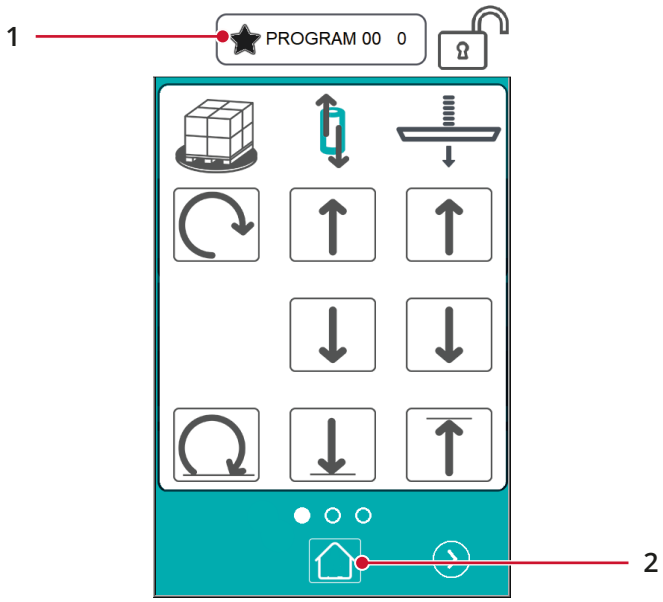
The system consists of a colour display, of the “touch screen” type with an active matrix. Simply “tap with a finger” the areas of the display to interact with the functions that the system makes available to the operator.

Use of the software is quite simple thanks to the graphical interface consisting of a series of tabs and icons.

USER INFORMATION

DESCRIPTION OF MAIN ELEMENTS

Below are the main elements that are repeatedly recalled within the software pages.



Text field

Displays the name of the program currently in use.

Key

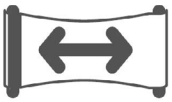
Press to save the set value and to return to the “HOME” or “GRID” page.

Icons

The icons shown on the various pages of the software can have three possible versions to identify the status of the function they represent; see example below.

Coloured icon

The function or option is present on the machine and is active with the corresponding value adjusted.



White icon

Relative function activated but not currently used (OFF).

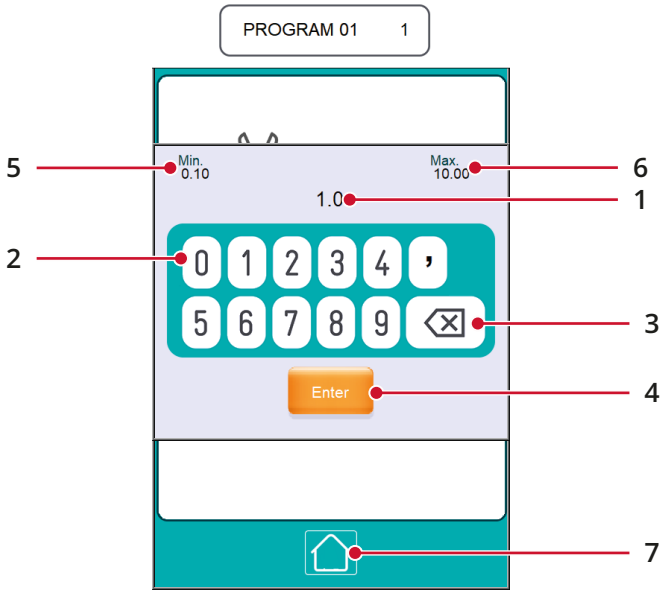
Grey icon

Relative function not activated and/or not present.

In the equipment of the machine no functions can be activated on request even after purchasing the machine. Contact Assistance for further information.

ENTERING NUMERIC VALUES

On the pages where it is possible to edit numeric values, simply tap the relevant editable field to enter a value; the following numeric keypad appears on the display.



1) Entered value display field
2) Numeric keypad area
3) Key to clear digit typed
4) Key for confirming of typed value
5) Maximum value that can be set (if any)
6) Minimum value that can be set (if any)

To exit the keypad, simply press the key **(7)** that saves the value entered and return to the previous page.

To enter a value:

A) Press the editable field on which to change the value.

B) To change the value, use the keypad.

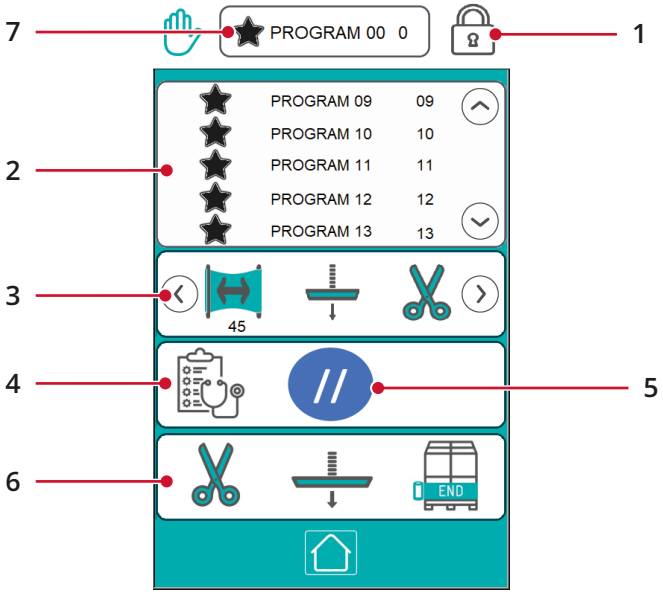
C) To confirm the value entered, press key **(4)**.

INFORMATION

If a value not between the minimum (6) and maximum (5) is entered, the software blocks entry of the value.

PAGES DESCRIPTION

SMART PAGE



Key

Press to access the password-protected area.

Text field

The preferred work programs chosen by the user are listed.

Field

The active options for the activated / in use program are displayed.

Key

Self-diagnosis to check the wear status of the machine.

Key

Press for 3 seconds to reset the functions activated by the software; in case of alarms for emergencies it is also necessary to intervene with the physical RESET button on the machine.

Keys

Press to access the relevant function.

The functions displayed can be chosen by the user (see relative page).

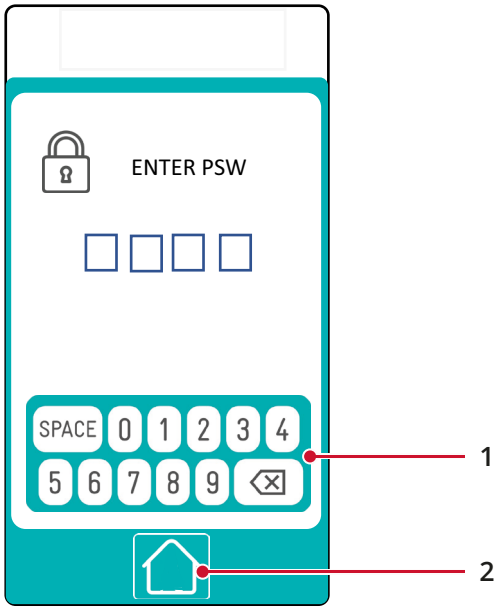
Changes to these functions only occur on the cycle in progress and do not overwrite the stored program.

Text field

The program in use is displayed.

RESTRICTED AREA ACCESS

Path: **SMART**

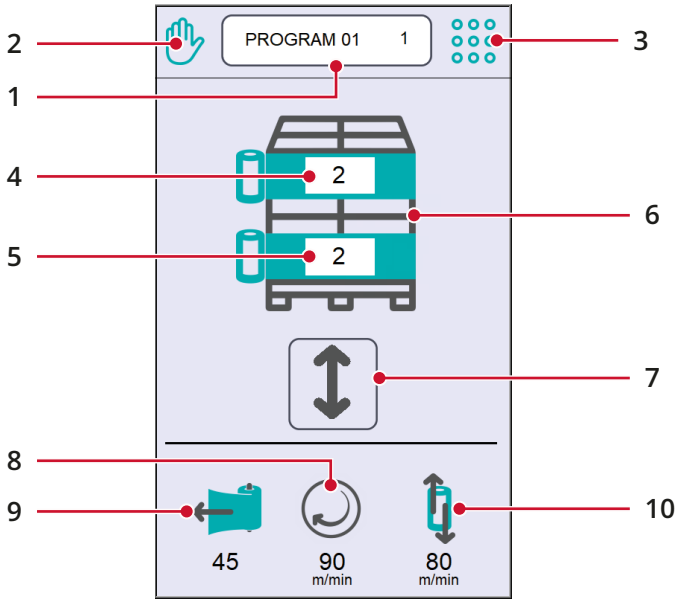


1) **Numeric keypad**
Type in the password to access the reserved area.

2) **Key**
Press to confirm.

HOME

Path: **SMART** **PSW**



Text field

Displays the name of the program currently in use.

The text field is invoked on all subsequent pages of the software.

Key

Press to access the “MANUAL CONTROLS” pages (see para. “” pag. 30).

Key

Press to access the “OPTIONS GRID” pages (see para. “” pag. 35).

F06 | NUMBER OF HIGH WRAPS

Text field

Indicates the number of high wraps that are executed by the program in use **(F06)**.

F05 | NUMBER OF LOW WRAPS

Text field

Indicates the number of low wraps that are executed by the program in use **(F05)**.

Icon

Press to access the “LOW - HIGH WRAPS NUMBER ADJUSTMENT” page (see para. “” pag. 18).

F01 | CYCLE TYPE

Icon

Displays the currently selected cycle type for the program in use.

Press to access the “CYCLE TYPE SELECTION” page (see para. “” pag. 21).

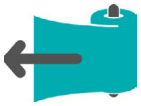
V02 | ROTATION SPEED

Icon

Press to access the “ROTATION SPEED ADJUSTMENT” page (see para. “” pag. 20).

The text field below shows the value currently set in the work program (m/min).

F13-F14-F15-F16 | FILM TENSION



Icon

Press to access the “FILM TENSION ADJUSTMENT” page (see para. “” pag. 12).

The text field below shows the value currently set in the wrapping program.

V03-V04 | TROLLEY UP / DOWN SPEED

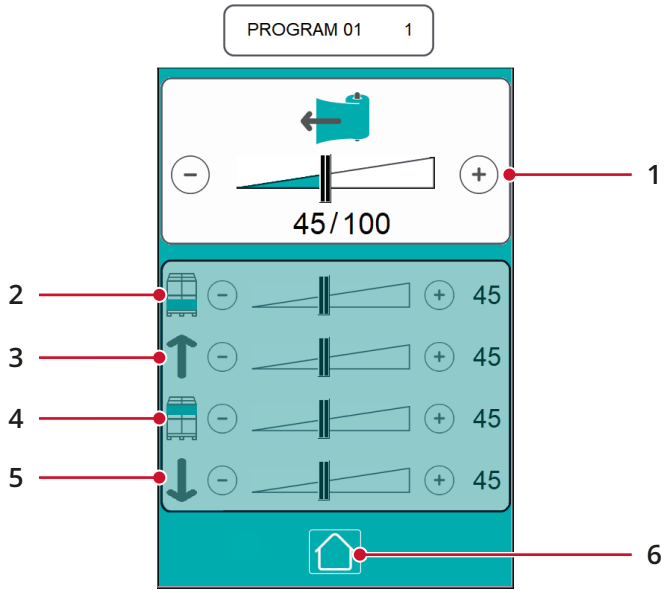
Icon

Press to access the “TROLLEY UP /DOWN SPEED ADJUSTMENT” page (see para. “” pag. 16).

The text field below shows the value currently set in the wrapping program (m/min).

Film tension adjustment

Path: **SMART** **PSW** **HOME**



The tension of the film corresponds to the pulling force exerted on the pallet.

1) **Cursor +/- or keys**

Adjusts the tension value of the film to a single value.

Valid for all phases of the wrapping cycle.

The text field below shows the value set.

2) **F13**

Cursor +/- or keys

Adjusts the film tension value during low wraps at the base of the pallet.

The text field next to it shows the value set.

3) **F14**
Cursor +/- or keys
Adjusts the film tension value during the trolley ascent phase.
The text field next to it shows the value set.

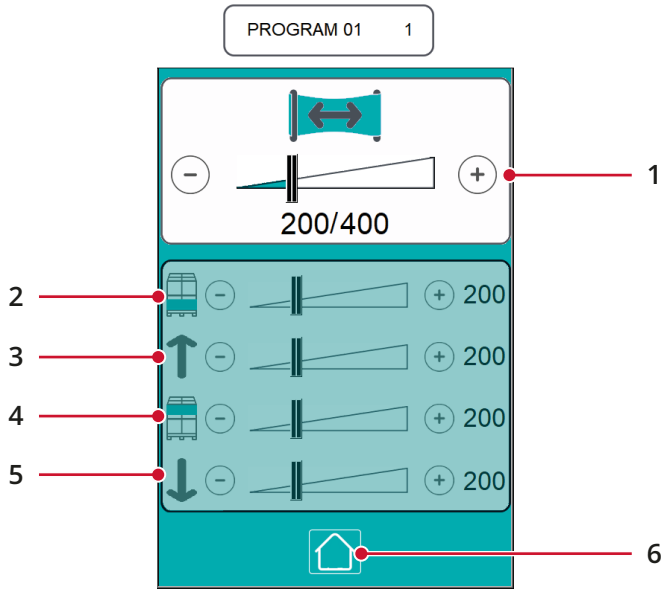
4) **F15**
Cursor +/- or keys
Adjusts the film tension value during high wraps at the top of the pallet.
The text field next to it shows the value set.

5) **F16**
Cursor +/- or keys
Adjusts the film tension value during the trolley descent phase.
The text field next to it shows the value set.

6) **Key**
Press to save the set values and to return to the “HOME”.

Film pre-stretch

Path: **SMART** **PSW** **HOME**



Pre-stretch is the percentage of lengthening of the film.

1) **Cursor +/- or keys**

Adjusts the pre-stretch value of the film into a single value.

Valid for all phases of the wrapping cycle.

The text field below shows the value set.

2) **F17**

Cursor +/- or keys

Adjusts the pre-stretch value of the film during low wraps at the base of the pallet.

The text field next to it shows the value set.

3) **F18**
Cursor +/- or keys
Adjusts the film pre-stretch value during the trolley ascent phase.
The text field next to it shows the value set.

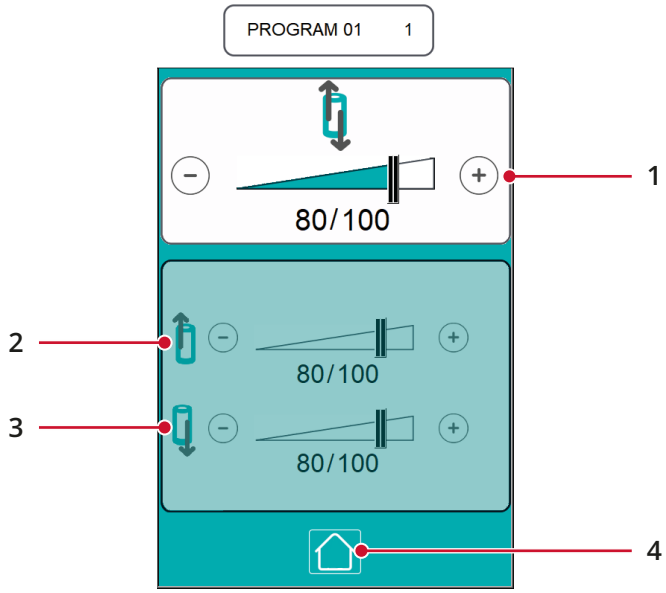
4) **F19**
Cursor +/- or keys
Adjusts the pre-stretch value of the film during high wraps at the top of the pallet.
The text field next to it shows the value set.

5) **F20**
Cursor +/- or keys
Adjusts the film pre-stretch value during the trolley descent phase.
The text field next to it shows the value set.

6) **Key**
Press to save the set values and to return to the “HOME”.

Trolley up / down speed

Path: **SMART** **PSW** **HOME**



1) **Cursor +/- or keys**
Adjusts the trolley ascent / descent speed to a single value.
Valid for all phases of the wrapping cycle.
The text field below shows the value set.

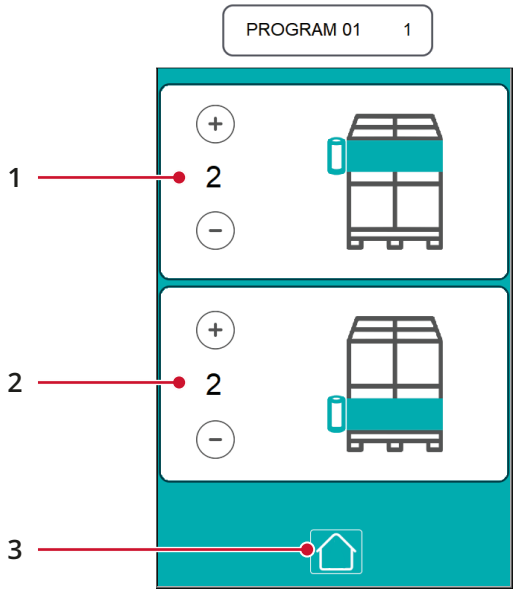
2) **F03**
Cursor +/- or keys
Adjusts the trolley ascent speed.
The text field below shows the value set.

3) **F04**
Cursor +/- or keys
Adjusts the trolley descent speed.
The text field below shows the value set.

4) **Key**
Press to save the set values and to return to the “HOME”.

Adjusting the number of low - high wraps

Path: **SMART** **PSW** **HOME**



1) **F06**

+/- Keys

Sets the number of wrapping turns at the top of the load to be wrapped.

The text field shows the value set.

2) **F05**

+/- Keys

Sets the number of wrapping turns at the bottom of the load to be wrapped.

The text field shows the value set.

3) **Key**

Press to save the set values and to return to the “HOME”.

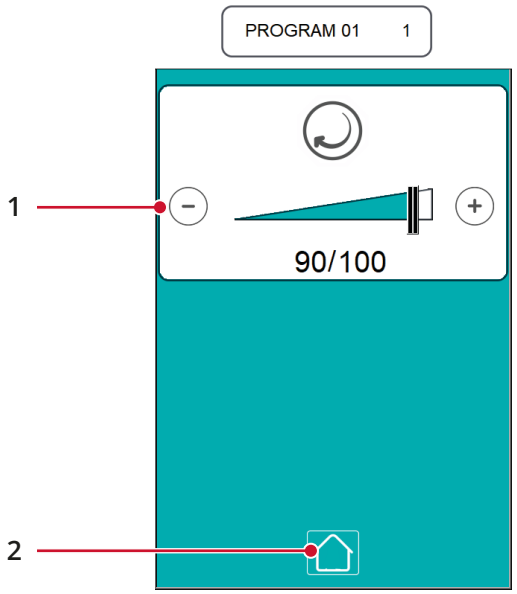
Combining the speed of ascent / descent of the trolley and that of rotation results in a generally high overlap of the wraps of film.

At constant rotation speed: increasing the speed of ascent / descent of the trolley decreases the overlap while decreasing the speed of ascent / descent of the trolley increases the overlap.

At constant ascent / descent speed: increasing the rotation speed increases the overlap while decreasing the rotation speed decreases the overlap.

Rotation speed adjustment

Path: **SMART** **PSW** **HOME**



F02

Cursor +/- or keys

Adjusts the rotation speed.

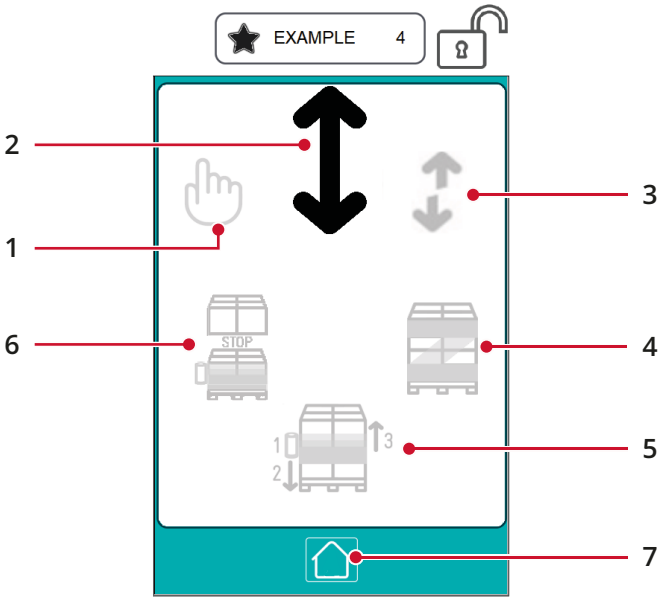
The text field below shows the value set.

Key

Press to save the set values and to return to the “HOME”.

Cycle

Path: **SMART** **PSW** **HOME**



The currently active cycle is indicated by the “coloured” icon; the grey icons indicate the cycles that are disabled.

Activating one type of cycle automatically deactivates the remaining ones.

F01 V03 | OPERATIONAL CYCLES

Icon

Press to activate the manual cycle and to access the “OPERATIONAL CYCLES” page (see para. “” pag. 24).

F01 V01 | FULL CYCLE

Icon

Press to activate the full cycle.

The wrapping takes place both during the ascent phase of the trolley and during the descent phase.

F01 V02 | PARTIAL CYCLE *

Icon

Press to activate the partial cycle.

The wrapping takes place only during the ascent phase or only during the descent phase of the trolley.

F01 V06 | ECO CYCLE

Icon

Press to activate the eco cycle.

The cycle entails the wrapping beginning with the low wraps **F05** set and the machine slows down the rotation, taking the trolley to the top of the pallet and then perform the high wraps.

A full wrap is not performed. This cycle ensures that the load is stabilised with minimal film consumption.

By combining this cycle with the **F29** soft start cycle function and the application of cardboard corners, optimal load stabilisation is achieved.

F01 V07 | HIGH STABILITY CYCLE

Icon

Press to activate the high stability cycle.

The cycle is particularly suitable for stabilising the load at the base of the pallet.

The high stability cycle performs a pre-set number of wraps **F07** at the pre-set height **F08** and then descends to the base of the pallet and performs the low wraps and then climbs up to complete the wrapping cycle.

F01 V05 | LAYER CYCLE

Icon

Press to activate the layer cycle.

The cycle provides that the wrapping in the ascent phase of the trolley stops when the photocell no longer detects the presence of the product. The operator has the opportunity to add a layer of product on the load and once this operation is performed, by pressing the cycle start button again, the wrapping will continue.

Key

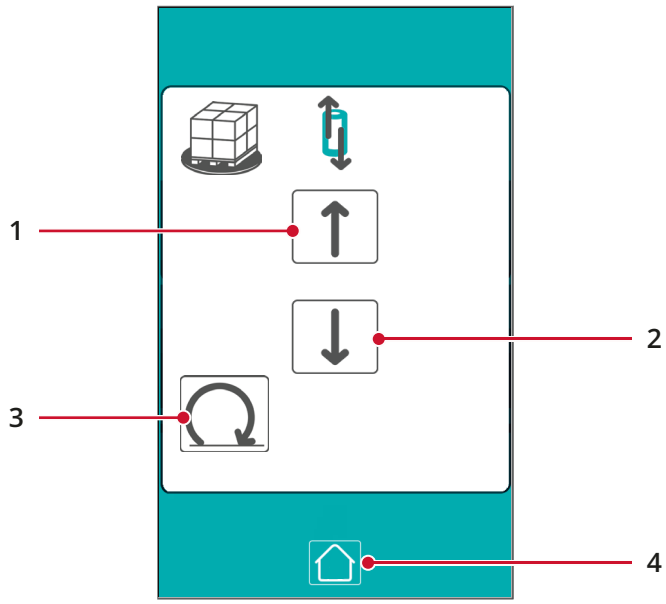
Press to save the set values and to return to the “HOME”.

INFORMATION (*)

The partial downward cycle can only be used if pallets of the same height are being wrapped.

Operational cycles

Path: **SMART** **PSW** **HOME** **CYCLE**



Once the wrapping cycle has been started, manual action is taken to raise and lower the trolley using the buttons.

Key

Press and hold to manually adjust the trolley ascent.

Key

Press and hold to manually adjust the trolley descent.

Key

Press to stop the rotary table of the table in phase (used with the manual cycle).

Key

Press to go back to “HOME”.

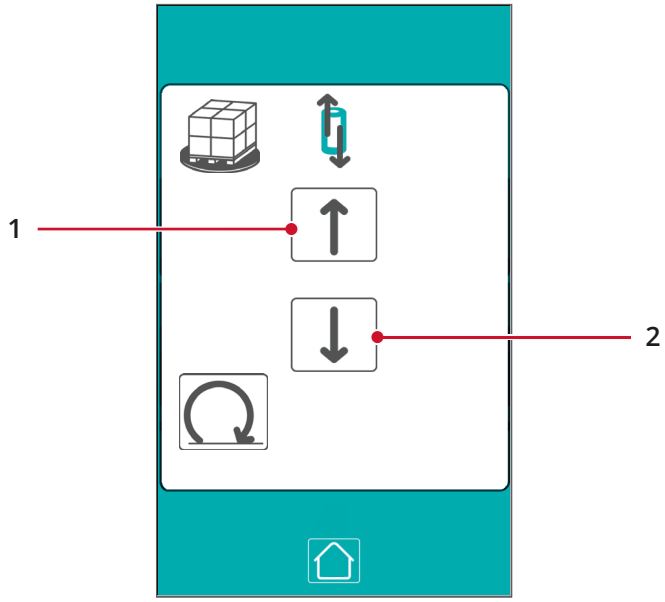
INFORMATION

If it is necessary to bring the table into phase, use the controls available in the area dedicated to manual controls or select the "reset" button on the "SMART" page.

F01 = 01 - COMPLETE UP/DOWN CYCLE

Automatic cycle which wraps the pallet starting from the bottom, reaching the top and returning to the bottom.

During the wrapping, cycle by accessing the manual controls page relating to the ascent and descent, it is possible, through the buttons **(1)** (trolley in the ascent phase) or **(2)** (trolley in the descent phase), to stop the movement of the trolley and have it restart to perform local reinforcement cycles.



F01 = 02 - UP ONLY OR DOWN ONLY CYCLE

DANGER

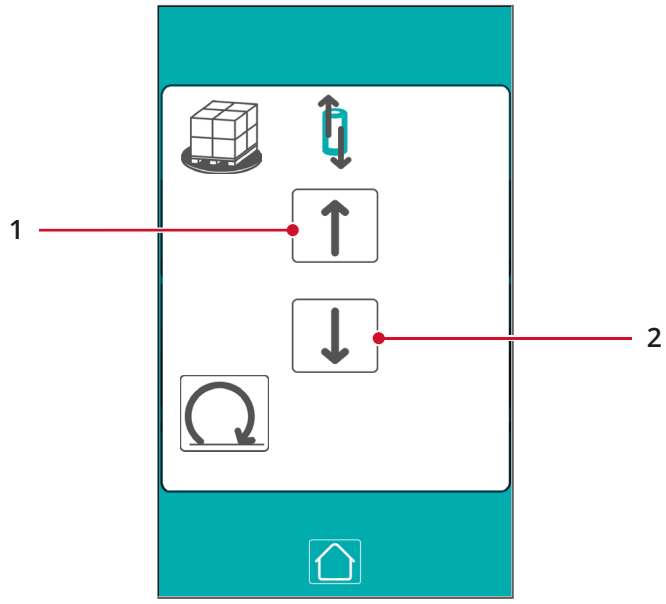
The cycle "only ascent" or "only descent" is prescribed for maximum height of the product to be wrapped equal to 1500 mm. In addition to this height, it is necessary to use adequate personal protection equipment according to the risk of falling and work at a height greater than 1500 mm.

Automatic cycle which wrapp the pallet starting from the bottom to reach the top or starting from the top to reach the bottom.

WARNING

The position of the trolley must be higher than the top of the load.

During wrapping , using the buttons **(1)** (trolley in the ascent phase) or **(2)** (trolley in the descent phase), it is possible to stop the movement of the trolley and have it restart to perform local reinforcement cycles.



After pressing the cycle start button on the machine, an audible warning device signals the descent of the presser plate five seconds in advance.

- After the audible warning time has elapsed, the presser descends until it is in contact with the top of the product. The function **F25** delays the stop of the descent to adjust the pressure on the product.
- The table begins to turn and the wrapping phase of the product on the pallet starts.
- At the end of the cycle the turntable stops and the presser plate returns upwards, leaving the product free for unloading.

To manually command presser up and down, display function **F21** (which must be set to **1**) and press button **(1)** for up or **(2)** for down.

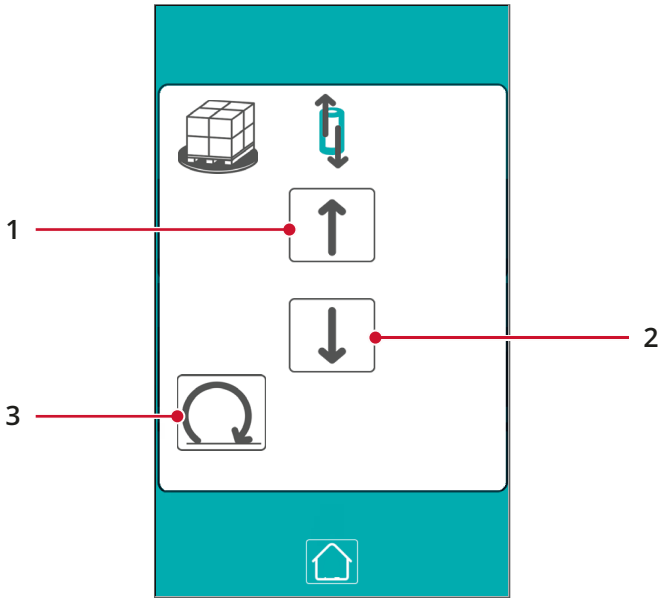
F01 = 03 - MANUAL OPERATING CYCLE

After setting the manual cycle, press the **START** button on the machine.

The table starts rotating again and the pallet wrapping phase begins.

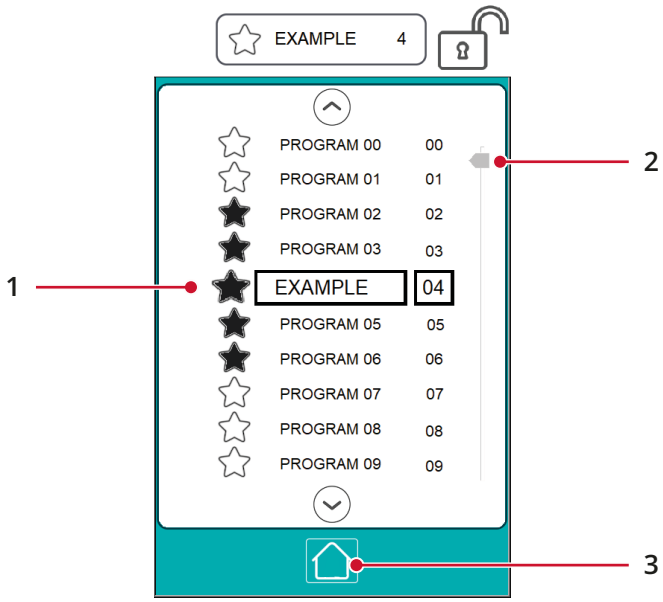
Command the ascent and descent of the trolley by pressing the buttons **(1)** and **(2)**.

To command the stop of the table in phase, press the button **(3)**.



Programs list

Path:	SMART	PSW	HOME
			PROG.



1) **Key**

Press and hold the name of the active program for 3 seconds to change its name.

Press and hold the name of an inactive program for 3 seconds to activate it instead of the currently active program.

The “STAR” icon can be selected to insert the corresponding program in the list of favourites that appears on the “SMART” page.

2) **Cursor**

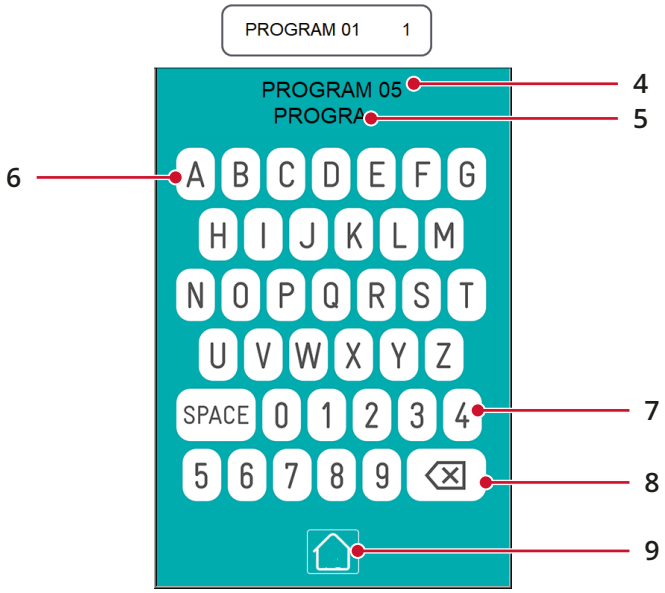
Use the cursor on the side to scroll through the list of programs.

It is also possible to scroll the list by pressing one of the two arrows on the screen; the one above to scroll up, the one below to scroll down.

3) **Key**

Press to save the set values and to return to the “HOME”.

When it is necessary to enter or change the name of a program, touch the relevant editable field; the following alphanumeric keypad appears on the display.



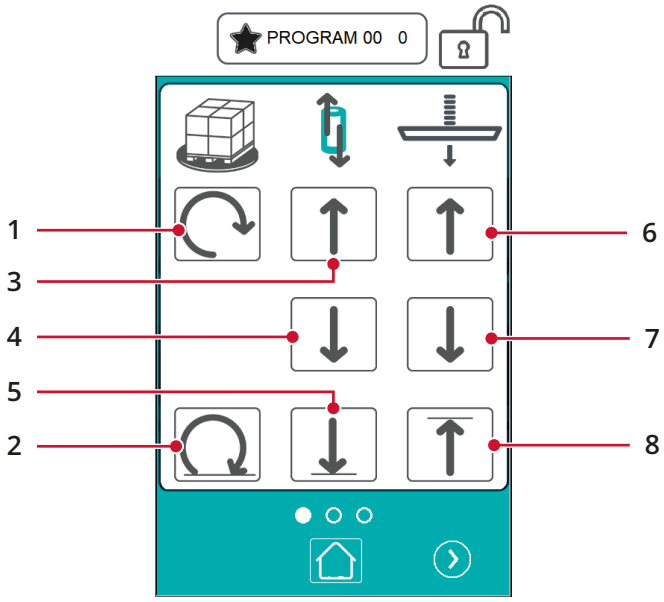
4) Previous value display field
5) Value display field changed
6) Alphabetical keypad zone
7) Numeric keypad area
8) Key for deleting typed character

To enter a value:

A) Press for 3 seconds the editable field on which to change the text value.
B) To change the value, use the keypad.
C) To confirm the value entered, press key **(9)** and exit the keypad, returning to the “HOME” page.

MANUAL CONTROLS

Path: **SMART HOME**



Key

Press and hold to activate table rotation.

Key

Activates rotation of the table up to the phase position.

Key

Press and hold to raise the trolley.

Key

Press and hold to lower the trolley.

Key

Attiva la discesa fino alla posizione di fase del carrello.

Key

Press and hold to raise the presser.

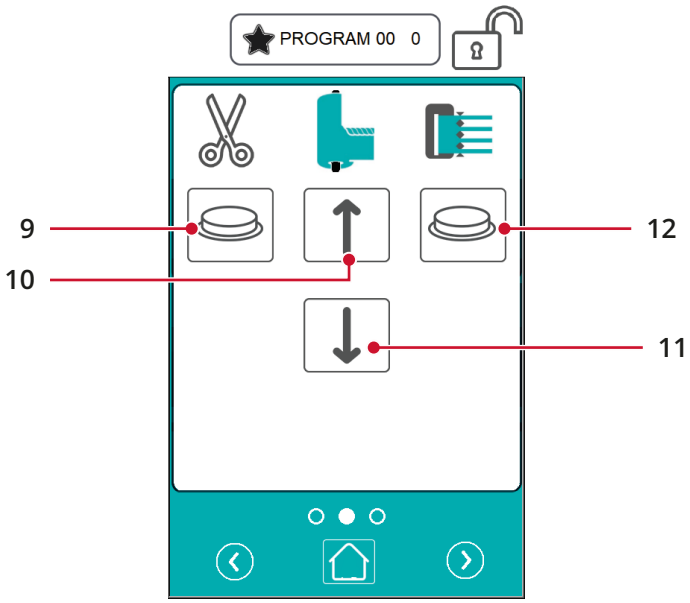
Key

Press and hold to lower the presser.

Key

Press and hold to raise the presser to the phase position.

Path: **SMART HOME**



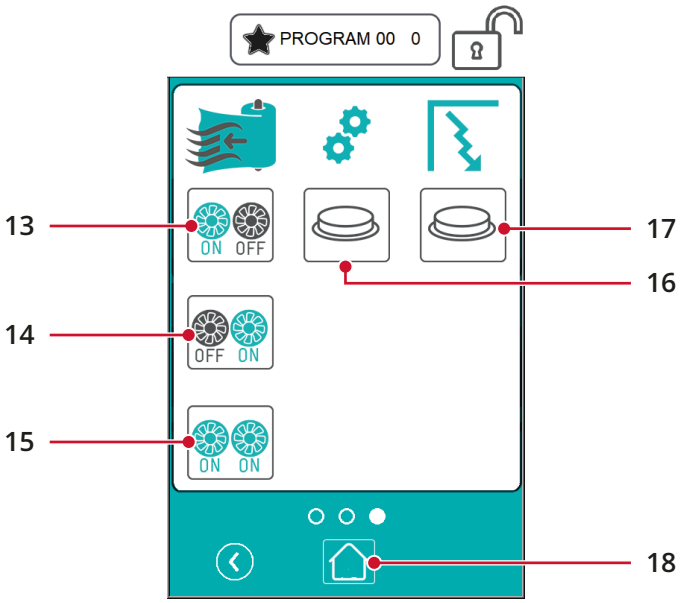
Key
Press to check the operation of the film cutter blade.

Key
Press to check the operation of the system to widen the film strip.

Key
Press to check the operation of the system to tighten the film strip.

Key
Press to check the operation of the system to cut the film into strip.

Path: **SMART HOME**



Key

Press and hold to check the operation of the external fan (trolley side) related to the ARYA function.

Key

Press and hold to check the operation of the internal fan (column side) relative to the ARYA operation.

Key

Press and hold to check the operation of both fans.

Key

Press and hold to check the operation of the ARYA system film extraction rollers unwinding motor.

Key

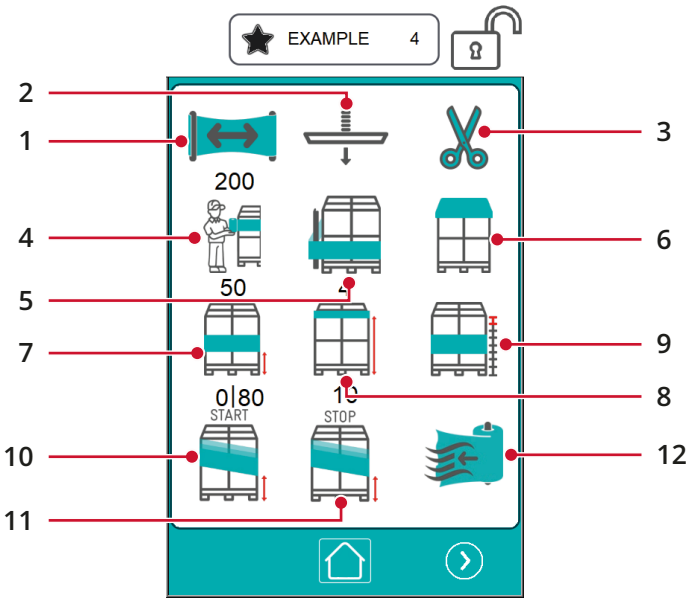
Press and hold to test the operation of the electrostatic bar.

Key

Press to confirm return to “HOME”.

OPTIONS GRID

Path: **SMART** **PSW** **HOME**



INFORMATION

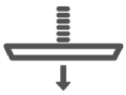
Pressing and holding any function grid icon for 3-5 seconds displays the function codes corresponding to those on the page.

F17-F18-F19-F20 | PRE-STRETCH ADJUSTMENT

Icon

Press to access the “FILM PRE-STRETCH ADJUSTMENT” page (see para. “” pag. 14).

The text field below shows the value currently set.



F21-F25-F59-F60 | PRESSER ADJUSTMENTS

Icon

Press to access the pages relating to the presser (see para. “” pag. 40).

F26-F27-F28 | FILM CUTTING

Icon

Press to access the “AUTOMATIC FILM CUTTING (OPTION)” page (see para. “” pag. 44).

F62 | COMFORT POSITION

Icon

Press to access the “COMFORT POSITION” page (see para. “” pag. 47).

The text field below shows the value currently set.

F29 | SOFT START

Icon

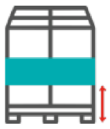
Press to access the “SOFT START” page (see para. “” pag. 49).

The text field below shows the value currently set.

F22-F23 | SHEET FEEDER CYCLE

Icon

Press to access the “SHEET FEEDER CYCLE” page (see para. “” pag. 51).

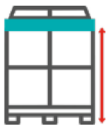


F07-F08 | REINFORCEMENT WRAPPING TURNS

Icon

Press to access the “HEIGHT REINFORCEMENT WRAPS NUMBER ADJUSTMENT” page (see para. “” pag. 53).

The text field below shows the value currently set.

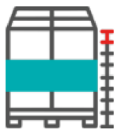


F09-F12 | PHOTOCELL WRAPPING/EXCLUSION HEIGHT ADJUSTMENT

Icon

Press to access the “WRAPPING HEIGHT ADJUSTMENT” page (see para. “” pag. 55).

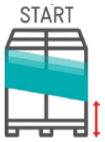
The text field below shows the value currently set.



F30-F31 | STEP CYCLE

Icon

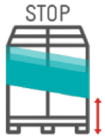
Press to access the STEP CYCLE” page (see para. “” pag. 57).



F10 | WRAPPING START HEIGHT

Icon

Press to access the “WRAPPING START HEIGHT” page (see para. “” pag. 59).



F11 | WRAPPING END HEIGHT

Icon

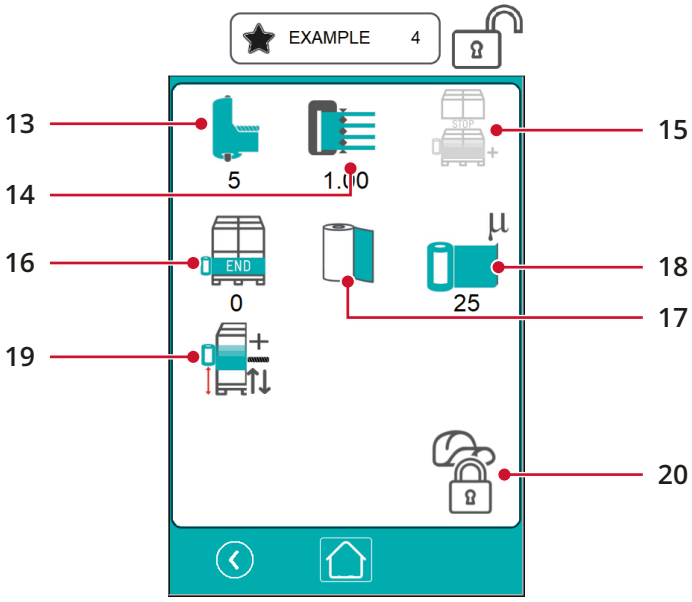
Press to access the “WRAPPING END HEIGHT” page (see para. “” pag. 60).

F40-F41-F42-F43-F44-F45-F46 | ARYA SYSTEM

Icon

Press to access the “ARYA OPTION” page (see para. “” pag. 61).

Path: **SMART** **PSW** **HOME**



F34-F35-F36-F37-F38-F63 | CREASING
Icon

Press to access the “FILM CREASING” page (see para. “” pag. 67).
The text field below shows the value currently set.

F65-F66-F67-F68-F69 | STRIP CUTTER
Icon

Press to access the “STRIP FILM CUT” page (see para. “” pag. 72).
The text field below shows the value currently set.

F61 | ADDITIONAL WRAPS PER LAYER CYCLE
Icon

Press to access the “Number of additional wraps for each layer” page (see para. “” pag. 75).

F64 | FINAL LOW WRAPS

Icon

Press to access the “FINAL LOW WRAPS NUMBER” page (see para. “” pag. 76).

The text field below shows the value currently set.

FILM CONSUMPTION

Icon

Indicates whether the end-of-cycle film consumption reading option is on or off.

F24 | FILM THICKNESS

Icon

Press to access the “FILM THICKNESS SETTING” page (see para. “” pag. 77).

The text field below shows the value currently set.

F70 TO F84 | ADDITIONAL REINFORCEMENT WRAPS

Icon

Press to access the “ADDITIONAL REINFORCEMENT WRAPS” page (see para. “” pag. 78).

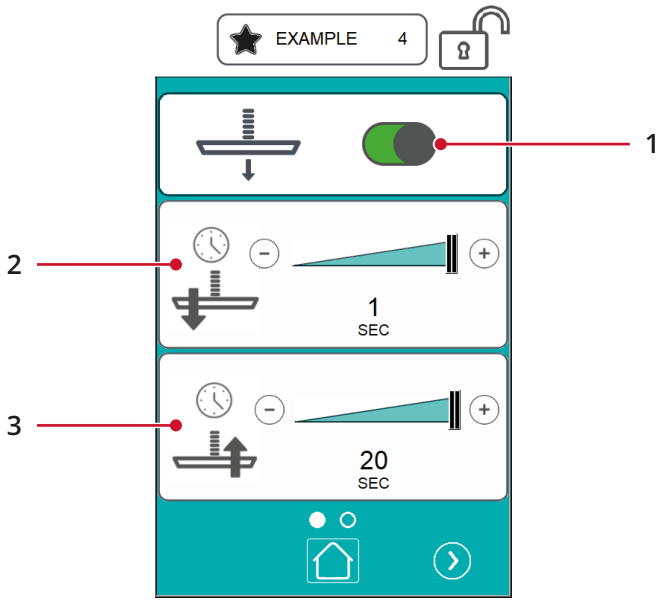
RESERVED LEVEL ACCESS

Icon

Press to access the “SPECIALIST OPERATOR RESERVED AREA” page (see para. “” pag. 81).

Pallet presser activation

Path: **SMART** **PSW** **HOME** **GRID**



F21

ON / OFF Selector

By turning the selector to the ON position (shown with the green colour) the presser is activated.

By turning the selector to the OFF position (shown with the red colour) the presser is deactivated.

F25

Cursor +/- or keys

Adjusts the time of descent of the presser on the pallet.

The text field shows the value set in seconds.

The greater the value assigned to this function, the greater the pressure force exerted on the product.

F59

Cursor +/- or keys

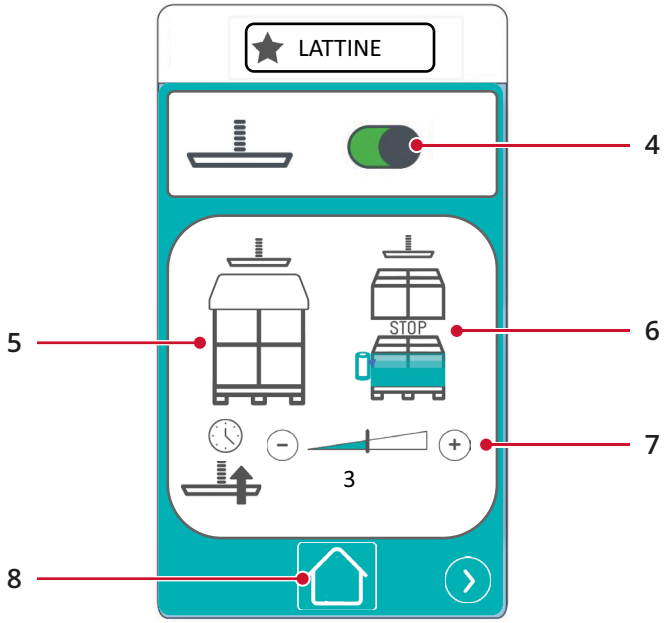
Adjusts the ascent time of the presser on the pallet at the end of the cycle.

The text field shows the value set in seconds.

If the height of the product to be wrapped is significantly lower than that of the column, activating this function prevents the presser from rising to the end of the stroke at the end of the cycle in order to avoid wasting time between one wrap and another.

Presser up during cover or layer cycle

Path: **SMART** **PSW** **HOME** **GRID**



WITH LAYER / COVER CYCLE ACTIVATED:

F21

ON / OFF Selector

Bringing the selector to the ON position (displayed with the green colour) activates the upward movement of the presser during the “cover” or “layer” cycle.

Bringing the selector to the OFF position (shown with the red colour) deactivates the ascent of the presser during the “cover” or “layer” cycle.

Icon*

If grey: “COVER” cycle not active.

If coloured: “COVER” cycle active.

Icon*

If grey: “LAYER” cycle not active.

If coloured: “LAYER” cycle active.

F60

+/- Keys

Adjusts the ascent time of the presser at the end of the “LAYER” / “COVER” cycle.

The text field shows the value set in seconds.

Key

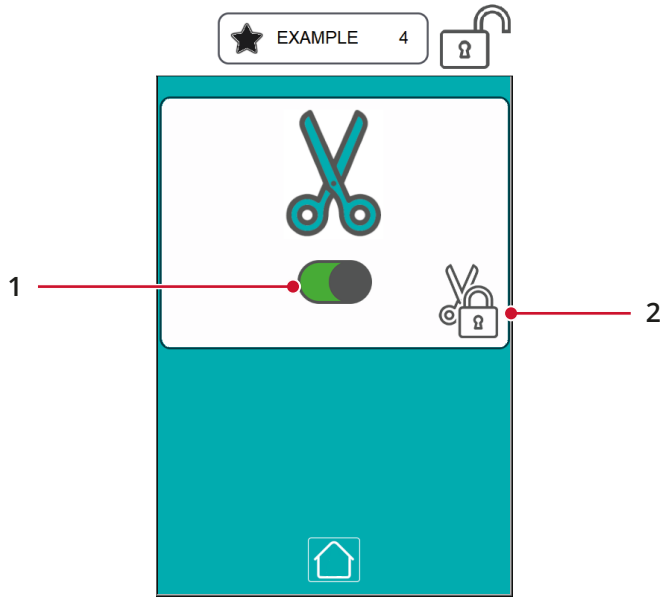
Press to save the set values and to return to the “HOME”.

INFORMATION (*)

From the icons it is not possible to activate the indicated cycle but only to display its status.
It may be that the “LAYER” cycle and the “COVER” cycle are active simultaneously.

Automatic film cut (option)

Path: **SMART** **PSW** **HOME** **GRID**



1) **F26 | AUTOMATIC CUTTING**
ON / OFF Selector

By turning the selector to the ON position (shown with the green colour) automatic cutting of the film is activated.

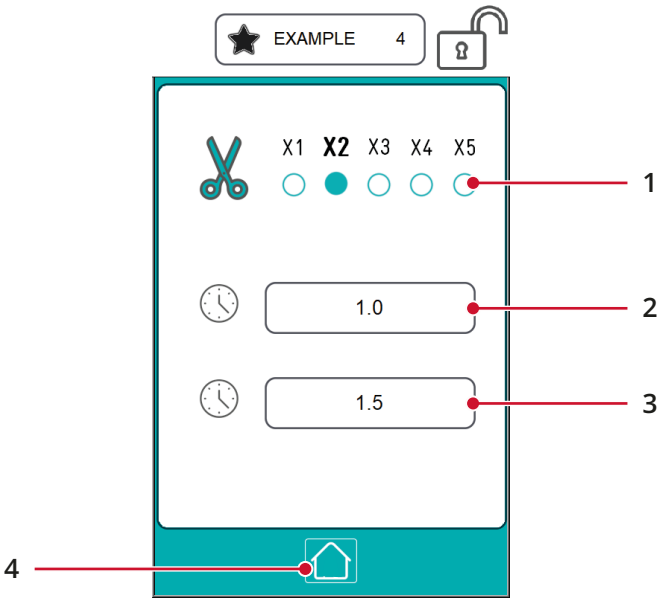
By turning the selector switch to the OFF position (shown with the red colour) automatic cutting of the film is deactivated.

2) **FILM CUT OPTIONS ACCESS**
Icon

Press to access the reserved area for adjusting the parameters related to automatic cutting.

Automatic film cutting setting (option)

Path: **SMART** **PSW** **HOME** **GRID**



1) **F26 V2/V3/V4/V5**
Icon

Select the icon for the number of blade strokes required to automatically cut the film.

2) **F27**
Editable field

Press to change the set value of the time for which, after locking the rollers, the movement of the machine continues to pull the film before cutting, creating a tension.

3) **F28**
Editable field

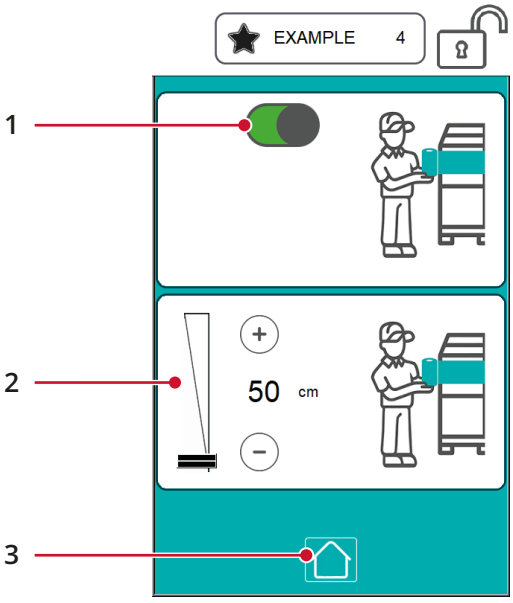
Press to change the set value of the time for which, after cutting, the rollers are released to allow the film to exit.

4) **Key**

Press to save the set values and to return to the “HOME”.

Comfort position

Path: **SMART** **PSW** **HOME** **GRID**



The “Comfort position” is the height that allows the operator to perform the operation of attaching film to the pallet or changing film roll ergonomically or without having to bend down.

This height is set by the factory at 70 cm from the ground and can be modified through the software.

1) **F62 | COMFORT POSITION ACTIVATION**
ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the comfort position.

Bringing the selector switch to the OFF position (shown with the red colour) deactivates the comfort position.

2) **Cursor +/- or keys**

Adjusts the height at which the trolley will position itself at the end of the cycle.

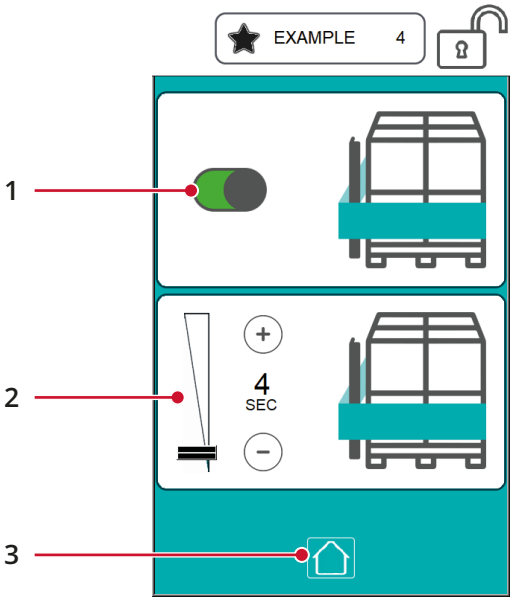
The text field shows the value set.

3) **Key**

Press to save the set values and to return to the “HOME”.

Soft start

Path: **SMART** **PSW** **HOME** **GRID**



By activating this function, the cycle starts with slow speed and film extraction with low tension and then reaches the speed and tension set by the relative dedicated areas. It is suitable for inserting corners in cardboard or in the case of a product that overflows or protrudes or with sharp edges to avoid breaking the film.

1) **F29 | SOFT START CYCLE**
ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the soft start function.

Turning the selector to the OFF position (shown in red) disables the soft start function.

2) **Cursor +/- or keys**

Adjusts the time during which the table rotates at a slow speed at the beginning of the cycle. Adjustable from 0 to 30 seconds.

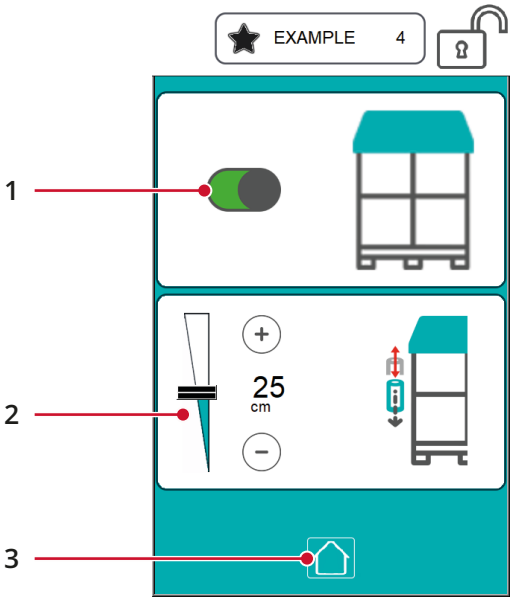
The text field shows the value set in seconds.

3) **Key**

Press to save the set values and to return to the “HOME”.

Sheet feeder cycle

Path: **SMART** **PSW** **HOME** **GRID**



By activating this function after the ascent phase, the trolley drops a position **F23** to allow the stretching out of the cover sheet on the product and the machine emits a sound to warn that the cycle is waiting to be restarted.

The cycle restarts by pressing the “START” key.

1) **F22**

ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the sheet feeder cycle.

Turning the selector to the OFF position (shown with the red colour) deactivates the sheet feeder cycle.

2) **F23**
Cursor +/- or keys

Adjust how far the trolley must descend to allow the sheet to be spread over the pallet.

The text field shows the value in centimetres set.

3) **Key**

Press to save the set values and to return to the “HOME”.

F22 = 01 SHEET FEEDER CYCLE

DANGER

The cycle "up and down with pause" is prescribed for maximum height of the product to be wrapped equal to 1500 mm. In addition to this height, it is necessary to use adequate personal protection equipment according to the risk of falling and work at a height greater than 1500 mm.

Automatic Up and Down cycle or Up only with a pause when the top of the product being wrapped is reached; before the pause the carriage can descend by a distance set with **F23**. The machine stop and wait to restart emitting a slow intermittent signal. If the machine is equipped with a presser, this increases the time set to **F60**.

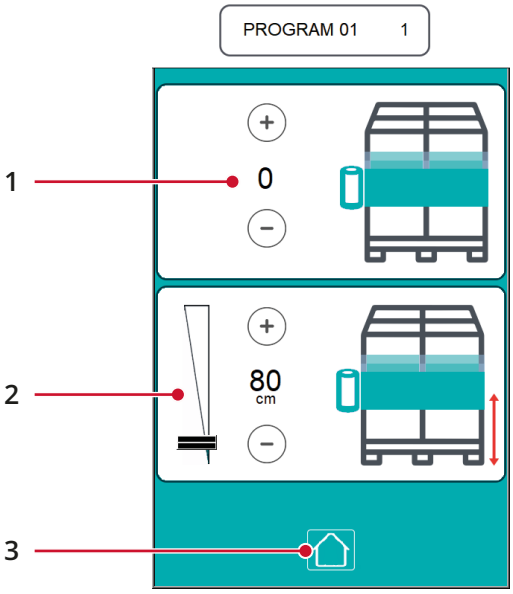
To complete the wrapping cycle in pause, press the cycle start button on the machine.

If the cycle set is for ascent and descent, the trolley ascends, performs the top wraps, descends toward the base, and then the cycle stops.

If the cycle set is for ascent only, the trolley ascends, performs the top wraps, and then the cycle stops.

Adjustment of number of reinforcement wraps at height

Path: **SMART** **PSW** **HOME** **GRID**



1) **F07**
+/- Keys
Adjust the number of wrapping turns.
The text field shows the value set.

2) **F08**
Cursor +/- or keys
Adjusts the height at which to perform the reinforcement wraps of the film.
The text field shows the value in centimetres set.

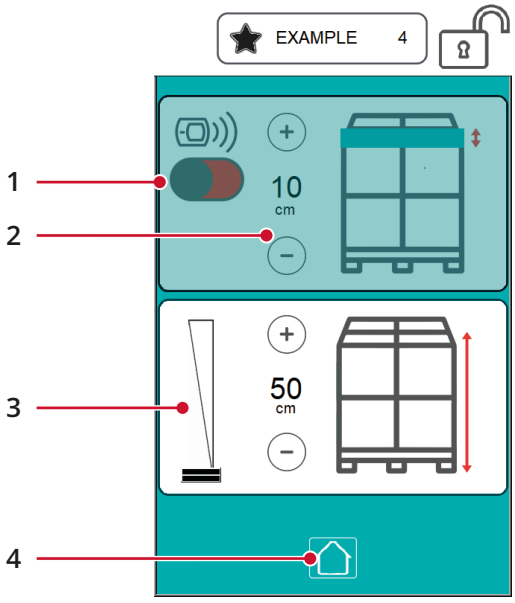
3) **Key**
Press to save the set values and to return to the “HOME”.

INFORMATION

*With the **F35** active, the reinforcement wraps are performed with creasing.*

Winding height adjustment

Path:	SMART	PSW	HOME	GRID



By turning the selector to ON, the photocell reads the height of the product to be automatically wrapped and it is possible to set a value **F09** corresponding to an overhang that will exceed the height of the pallet.

With the selector on OFF, the automatic height reading is not active and the operator must indicate the desired wrapping height using **F12**.

1) **F09**

ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the detection of the wrapping height by means of a photocell.

Turning the selector to the OFF position (shown with the red colour) activates the detection of the wrapping height by manually setting the height.

2) **+/- Keys**

Adjust the overhang value of the film.

The text field shows the value set.

3) **F12**

Cursor +/- or keys

Sets the height of the product to be wrapped.

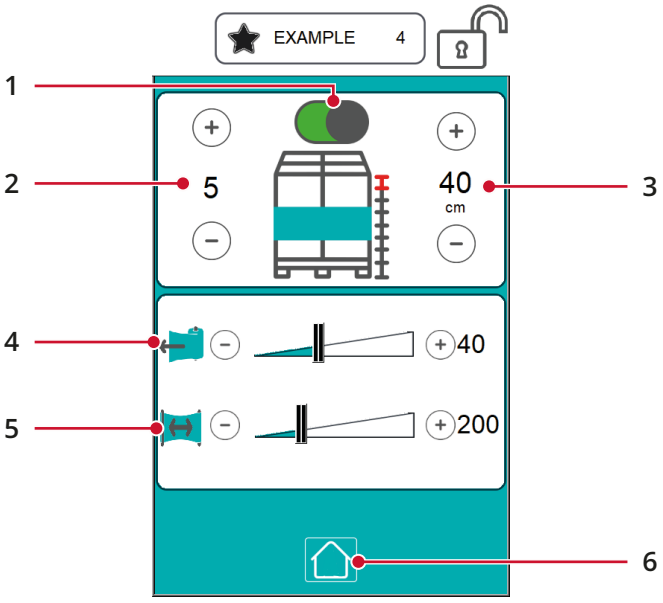
The text field shows the value in centimetres set.

4) **Key**

Press to save the set values and to return to the “HOME”.

Step cycle

Path: **SMART** **PSW** **HOME** **GRID**



By activating the step cycle, the machine performs a number **F31** of reinforcement wraps at regular intervals (step) of the pre-set trolley ascent height **F31** in centimetres.

1) **ON / OFF Selector**

Bringing the selector to the ON position (shown with the green colour) activates the step cycle.

Turning the selector to the OFF position (shown with the red colour) deactivates the step cycle.

2) **F31**

+/- Keys

Adjust the number of wraps to be performed at each step.

The text field shows the value set.

3) **F30**
+/- Keys
Adjusts the ascent at every step.
The text field shows the value in centimetres set.

4) **F32**
Cursor +/- or keys
Adjusts the pre-stretch value during the step cycle.
The text field shows the value set.

5) **F33**
Cursor +/- or keys
Adjusts the tension value during the step cycle.
The text field shows the value set.

6) **Key**
Press to save the set values and to return to the “HOME”.

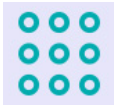
F30 STEP CYCLE

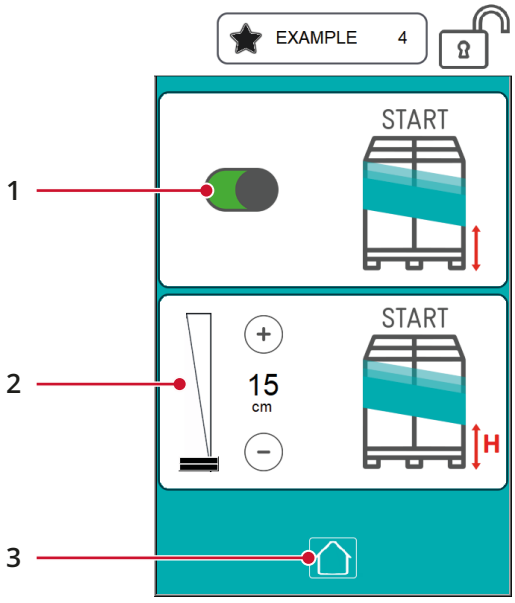
Automatic cycle that allows the pallet to be wrapped in steps.

The carriage ascends to the height set in **F30**, performs a number of rotations set in **F31**, and repeats until the top of the product is reached.

During the reinforcement rotations, the tension and lengthening of the film can be adjusted using the parameters set in **F32** and **F33**.

Winding start height

Path:	SMART	PSW	HOME	GRID
				



1) **ON / OFF Selector**

Bringing the selector switch to the ON position (shown with the green colour) activates the cycle start position.

Turning the selector to the OFF position (shown with the red colour) deactivates the cycle start position.

2) **F10**
Cursor +/- or keys

Adjusts the height from the ground from which the wrapping must start.

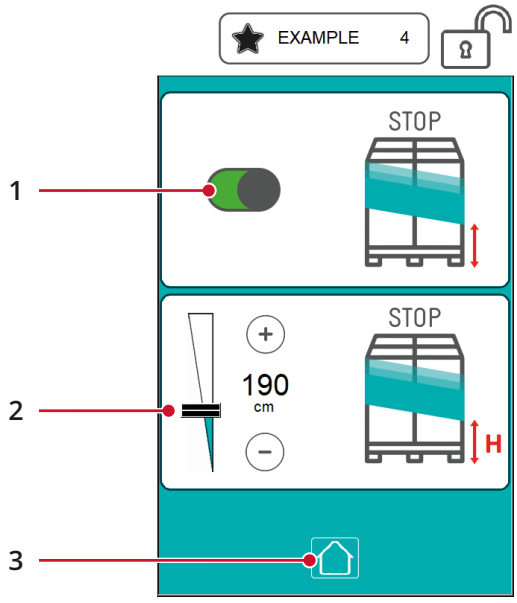
The text field shows the value in centimetres set.

3) **Key**

Press to save the set values and to return to the “HOME”.

Wrapping end height

Path: **SMART** **PSW** **HOME** **GRID**



1) **ON / OFF Selector**

Bringing the selector switch to the ON position (shown with the green colour) activates the cycle end position.

Turning the selector to the OFF position (shown with the red colour) deactivates the cycle end position.

2) **F11**

Cursor +/- or keys

Adjusts the height from the ground at which the wrapping must stop.

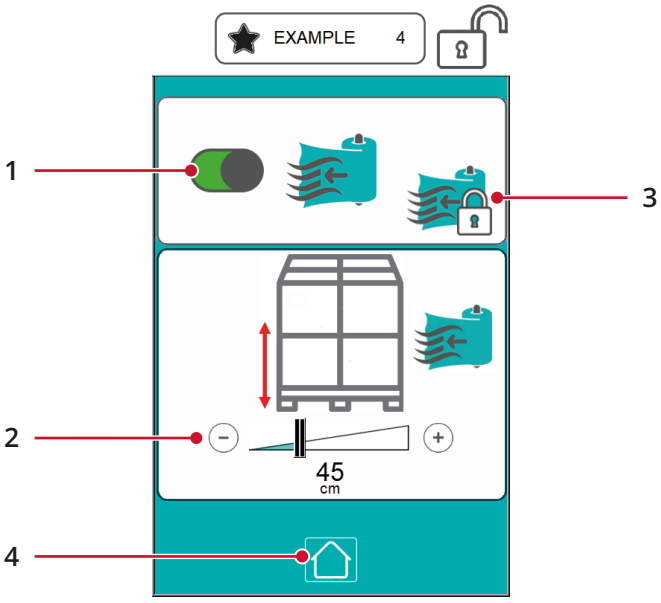
The text field shows the value in centimetres set.

3) **Key**

Press to save the set values and to return to the “HOME”.

Arya Option

Path: **SMART** **PSW** **HOME** **GRID**



The Arya system adapts to any size of the product to be wrapped. To do this, it is necessary to adjust a number of parameters that are not accessible to the user. To simplify the automatic adjustment of these parameters, simply enter the size of the product to be wrapped.

1) **F40 | ARYA ACTIVATION**
ON / OFF Selector

Turning the selector to the ON position (shown in green) activates the Arya system.

Turning the selector to the OFF position (shown in red) disables the Arya system.

2) **F41 | FILM ATTACHMENT HEIGHT ***
Cursor +/- or keys

Adjust the height at which the trolley is positioned to attach the film to the pallet during blowing of the Arya system.

The text field shows the value in centimetres set.

3) **F42-F43-F44-F45-F46 | PARAMETER ACCESS**
Icon

Press to access the reserved area for changing of the parameters related to the Arya system.

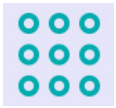
4) **Key**

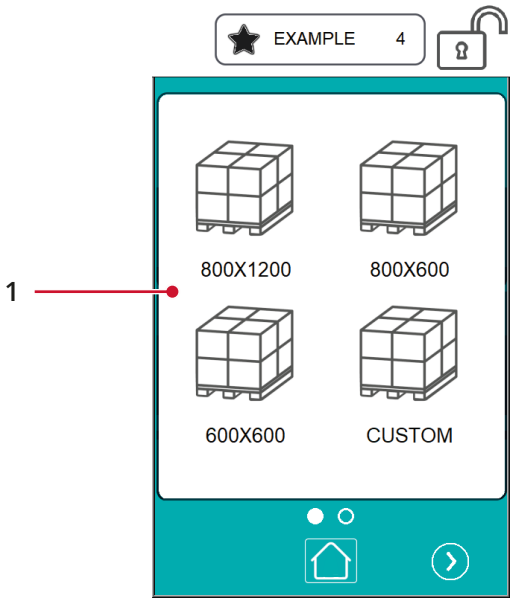
Press to save the set values and to return to the “HOME”.

INFORMATION (*)

The attachment value F41 must be adjusted according to the size of the product. The smaller the product, the higher the F41 must be so that the film does not fall on the plate.

Arya system parameters

Path:	SMART	PSW	HOME	GRID	
					

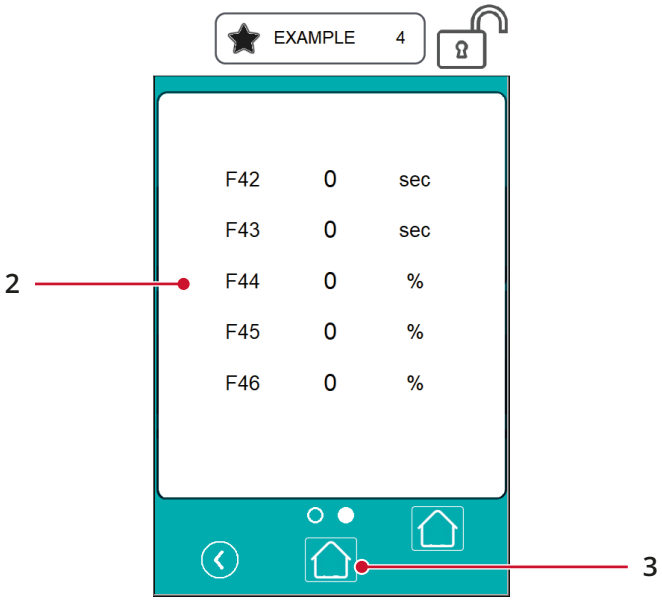


Icons

They are used to select the size of the pallet according to the work requirements.

The choice made is indicated by the colouring of the relative icon.

Path: **SMART** **PSW** **HOME** **GRID**



Text/editable fields

Based on the size of the pallet chosen in the previous screen, it is possible to view and vary the relative parameters shown on this page:

F42 - F43: Adjusts the film extraction time during the attachment phase

F44: Adjusts the rotation speed

F45 - F46: Adjusts the film delivery speed

Key

Press to save the set values and to return to the “HOME”.

Parameter operation and adjustment

The “ARYA” system is used to perform the operation of attaching the film to the pallet completely automatically.

This takes place via an option assembled on the pre-stretch trolley that blows the previously electrostatically charged film against the product to be wrapped through the fans with an air jet.

ADJUSTMENTS:

F40 cycle activation / deactivation

F41 height at which the film attaches to the product

F42 is the film extraction time during the attachment phase: for the first half of **F42** the 2 series of fans (external and internal) blow air at 100% of their capacity, for the second half of **F42** the external series of fans works at 100% and the internal one at 50%

F43 is the film extraction time during the attachment phase: the 2 sets of fans (external and internal) blow air at 50% of their capacity

F44 rotation speed during phases **F42** and **F43**

F45 film delivery speed during time **F42**

F46 film delivery speed during time **F43**

Function	Value
F40	1
F41	35
F42	17
F43	3
F44	30
F45	85
F46	50

By default the machine is set to wrap a pallet of dimensions:

- 800 x 1200 mm
- 1000 x 1200 mm

Another variant that can affect the correct functioning of the "ARYA" system in addition to the dimensions is also the height of the product:

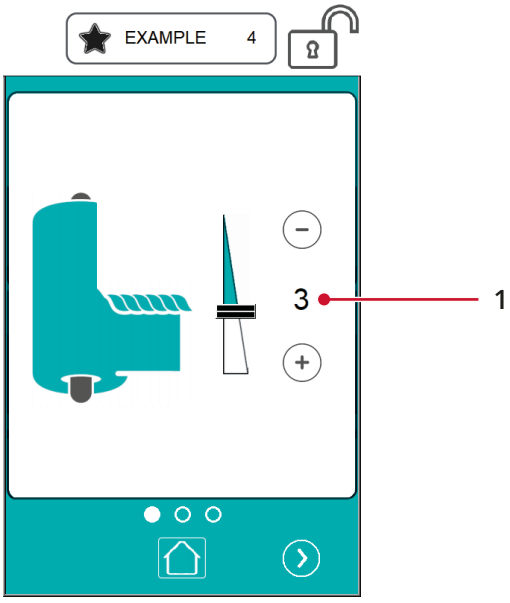
- A small product size requires an adjustment of the **F41** parameter to a greater height.
- The extraction speed of the film **F42** and **F43** must be proportioned to the speeds **F43** to avoid a situation whereby too much film comes out with respect to what is required.
- The thickness of the film can affect the correct functioning of the system; some very thin films below 15 microns require a special adjustment of **F42** and **F43** which must therefore be increased.

INFORMATION

These adjustments are reserved for Specialist Technicians; the user can simply choose predefined sets of parameters according to the size of the pallet.

Film creasing

Path: **SMART** **PSW** **HOME** **GRID**



Creasing of the film allows greater stabilisation of the load.

1) **F34-F35-F36-F37-F38-F39**
Cursor +/- or keys

Adjusts, from 0 to 5, by how much to tighten the strip:

0 = 50 cm (all open)

1 = 40 cm

2 = 30 cm

3 = 20 cm

4 = 10 cm

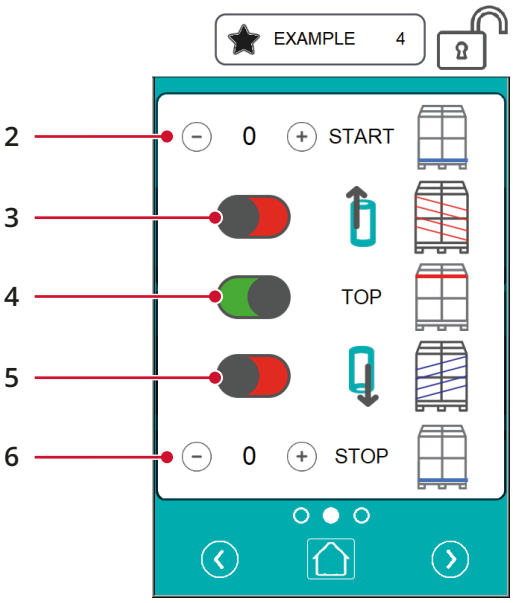
5 = 0 cm (all closed)

By changing the value, the icon to the left of the keys/cursor changes, graphically displaying the choice made.

The text field shows the value set.

Film ascent and descent creasing

Path: **SMART** **PSW** **HOME** **GRID**



2) **F34 | NO. OF CREASING WRAPS AT THE START OF THE CYCLE**
+/- Keys

Adjusts the number of initial low wraps with creasing.

The text field shows the value set.

3) **F35 | CREASING IN THE ASCENT PHASE**
ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the upward creasing.

Bringing the selector to the OFF position (shown with the red colour) deactivates the upward creasing.

4) **F36 | HIGH WRAPS CREASING**

ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the high wraps with creasing at the top of the pallet.

Turning the selector to the OFF position (shown in red) deactivates the high wraps with creasing at the top of the pallet.

Only by activating the high wraps with creasing it is possible to access the next page "FILM CREASING IN HIGH WRAPS".

5) **F37 | CREASING IN DESCENT PHASE**

ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) activates the downward creasing.

Bringing the selector to the OFF position (shown with the red colour) deactivates the downward creasing.

6) **F38 | NO. OF CREASING WRAPS AT THE END OF THE CYCLE**

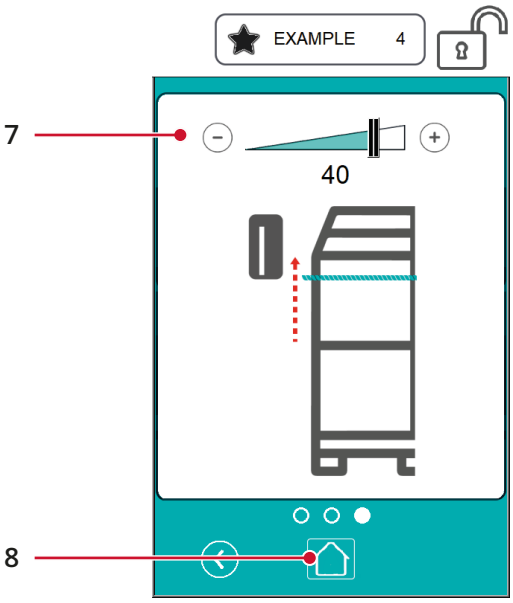
+/- Keys

Adjusts the number of final low wraps with creasing at the end of the cycle.

The text field shows the value set.

Film creasing in high wraps

Path: **SMART** **PSW** **HOME** **GRID**



7) **F63 | TROLLEY ASCENT HEIGHT TO PERFORM CREASING**

Cursor +/- or keys

It is the height of ascent of the trolley expressed in cm (minimum value 0, maximum value 50) to obtain a crease at the top of the pallet.

If **F63** is not activated, the trolley stops creasing under the top of the pallet.

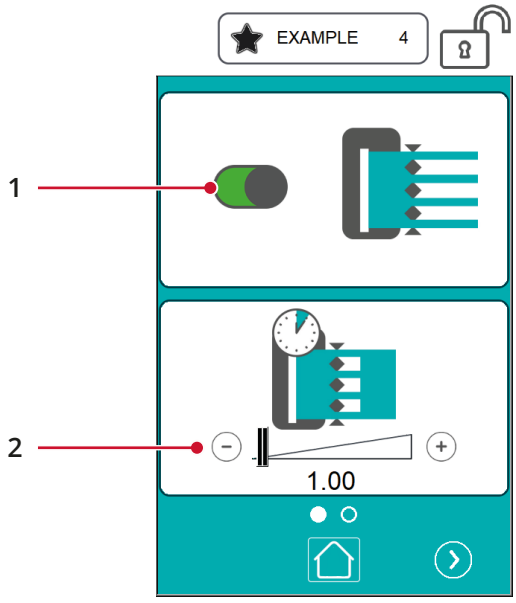
The text field shows the value set (value from 0 to 50).

8) **Key**

Press to save the set values and to return to the “HOME”.

Strip cutting

Path: **SMART** **PSW** **HOME** **GRID**



The number of strips in which the film will be divided ranges from 3 to 5 depending on the option purchased.

1) **F65 | ACTIVATION OF STRIPS CUTTER OPTION**
ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) enables cutting of the strips.

Bringing the selector to the OFF position (shown with the red colour) disables cutting of the strips.

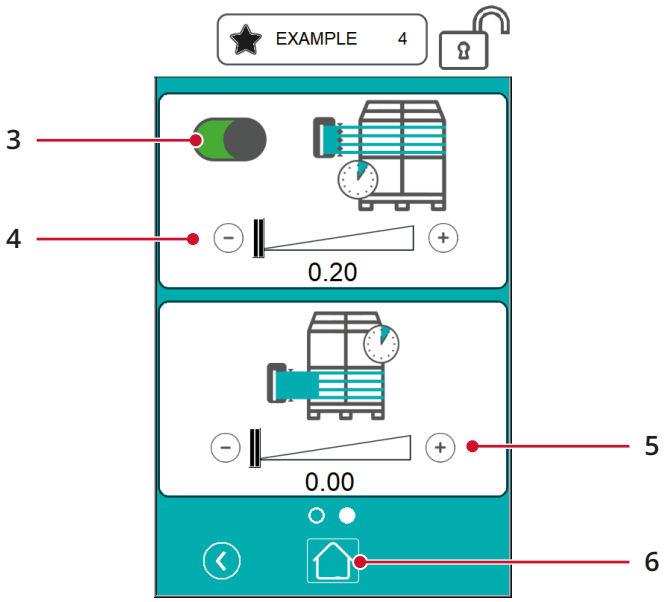
2) **F67 | BLADE ACTIVATION DELAY**
Cursor +/- or keys

At the beginning of the cycle, adjust the time for which the film remains whole before the blades are activated.

The text field shows the value in seconds set (minimum value 0.01 seconds, maximum value 20 seconds).

Enabling strip cutter in high wraps

Path: **SMART** **PSW** **HOME** **GRID**



3) **F66 | ACTIVATION OF STRIP CUTTERS IN HIGH WRAPS**
ON / OFF Selector

Bringing the selector to the ON position (displayed with the green colour) enables cutting of the strips in the high wraps.

Bringing the selector to the OFF position (shown with the red colour) disables cutting of the strips in high wraps.

4) **F68 | BLADE ACTIVATION DELAY IN THE DESCENT PHASE**
Cursor +/- or keys

Adjusts the activation delay before the trolley descends.

The text field shows the value in seconds set (minimum value 0.01 seconds, maximum value 20 seconds).

5) **F69 | DEACTIVATION OF BLADES AT END OF STROKE**
Cursor +/- or keys

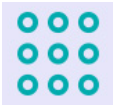
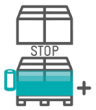
At the end of the cycle, adjust the time for which the film continues to be in strips before the blades are deactivated.

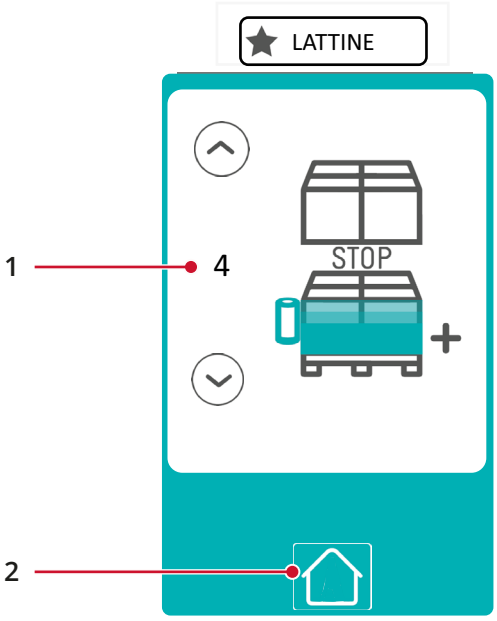
The text field shows the value in seconds set (minimum value 0.01 seconds, maximum value 20 seconds).

6) **Key**

Press to save the set values and to return to the “HOME”.

Number of additional wraps for each layer

Path:	SMART	PSW	HOME	GRID
				



INFORMATION

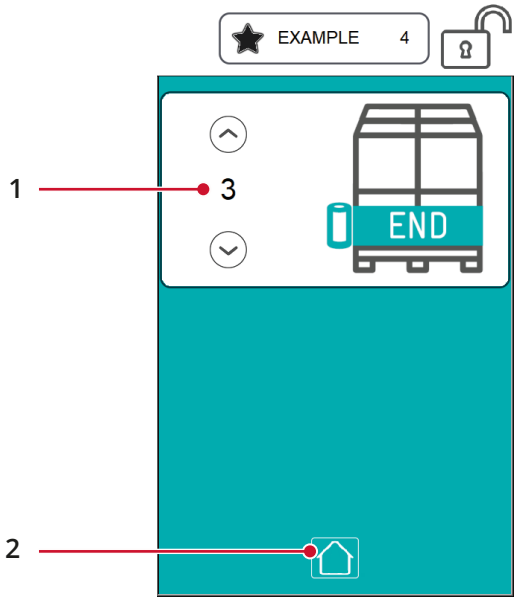
The page can only be accessed if the "layer" cycle is active.

1) **F61**
+/- Keys
Adjusts the number of wraps of reinforcement for each layer.
The text field shows the value set.

2) **Key**
Press to save the set values and to return to the "HOME".

Number of final low wraps

Path: **SMART** **PSW** **HOME** **GRID**



1) **F64**
+/- Keys
At the end of the cycle adjusts the number of final low wraps.
The text field shows the value set.

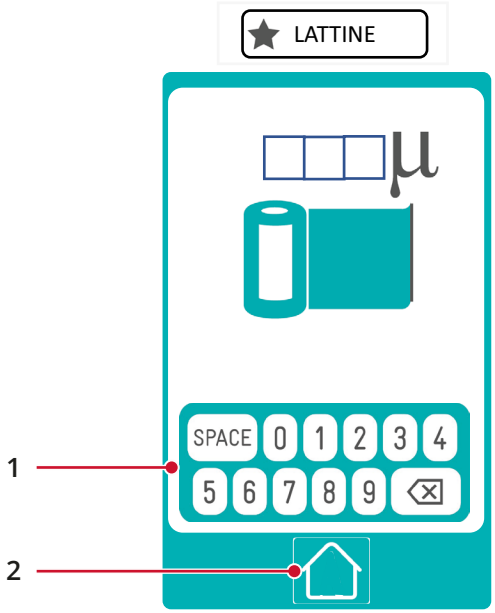
2) **Key**
Press to save the set values and to return to the “HOME”.

INFORMATION

*With **F05** set to any value other than 0 the wraps at the base of the product occur both at the beginning and at the end of the cycle.*
*It is useful to set the value of **F64** in case the low wraps **F05** is set to 0 and low wraps are required to be performed at the end of the cycle.*

Film thickness setting

Path:	SMART	PSW	HOME	GRID



1) **F24 | FILM THICKNESS SETTING**
Numeric keypad

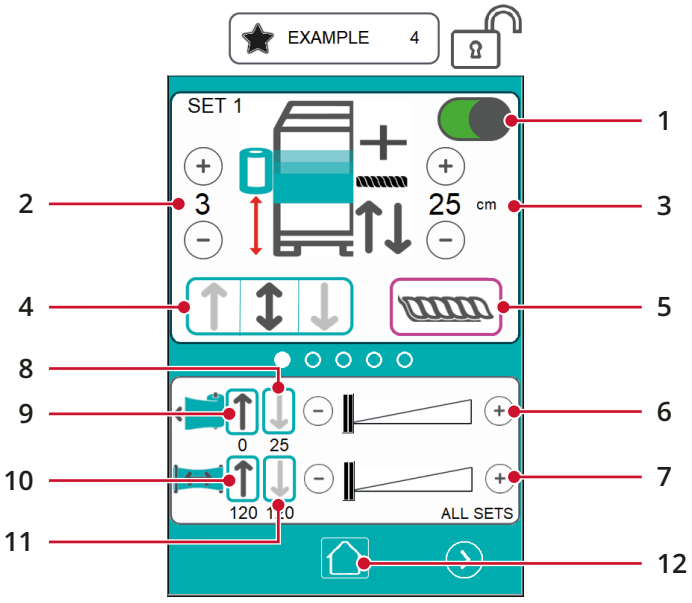
If the film consumption option is activated, this thickness value of the film used must be set.

2) **Key**

Press to confirm and return to the “HOME”.

Additional reinforcement wraps

Path: **SMART** **PSW** **HOME** **GRID**



INFORMATION

There are 5 sets of reinforcement wraps applicable at different heights.

1) **F70-F73-F76-F79-F82 | ACTIVATION OF ADDITIONAL REINFORCEMENT WRAPS**

ON / OFF Selector

Bringing the selector to the ON position (shown with the green colour) enables the additional reinforcement wraps.

Bringing the selector to the OFF position (displayed with the red colour) disables the additional reinforcement wraps.

2) **F71-F74-F77-F80-F83 | NO. OF REINFORCEMENT WRAPS DESIRED**

+/- Keys

Adjusts the number of additional reinforcement wraps.

The text field shows the value set.

3) **F72-F75-F78-F81 | HEIGHT AT WHICH TO PERFORM THE REINFORCING WRAPS**

+/- Keys

Adjusts the height at which to perform the additional reinforcement wraps.

The text field shows the value in centimetres set.

4) **Icons**

Press the icon corresponding to the mode of reinforcement wraps to be performed:

- in ascent only
- in ascent and descent
- in descent only

5) **Icon**

Activates the creasing in the reinforcement wraps.

6) **Cursor +/- or keys**

Adjusts the pull in the up/down reinforcement wraps depending on the icon that is pressed between **(8)** and **(9)**.

7) **Cursor +/- or keys**

Adjusts the pre-stretch in the up/down reinforcement wraps depending on the icon that is pressed between **(10)** and **(11)**.

8) **F86**

Icon

Activates the setting of the pull value in the upward reinforcement wraps using the keys/cursor **(6)**.

The text field shows the value set.

9) **F85**

Icon

Activates the setting of the pull value in the downward reinforcement wraps using the keys/cursor **(6)**.

The text field shows the value set.

10) **F87**

Icon

Activates the pre-stretch value setting in the upward reinforcement wraps using the keys/cursor **(7)**.

The text field shows the value set.

11) **F88**

Icon

Activates the pre-stretch value setting in the downward reinforcement wraps using the keys/cursor **(7)**.

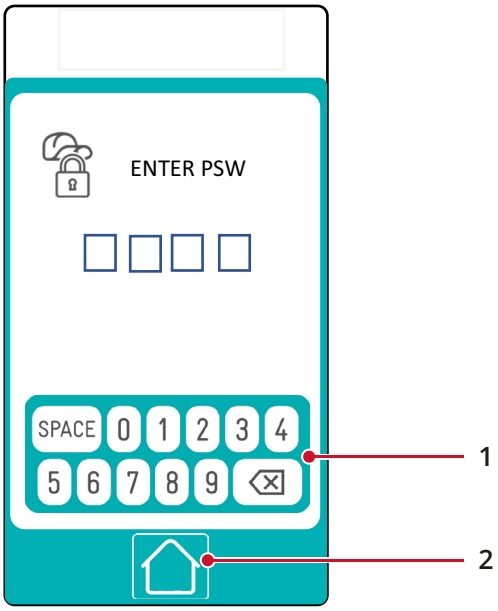
The text field shows the value set.

12) **Key**

Press to save the set values and to return to the “HOME”.

Specialist operator reserved area

Path: **SMART** **PSW** **HOME** **GRID**



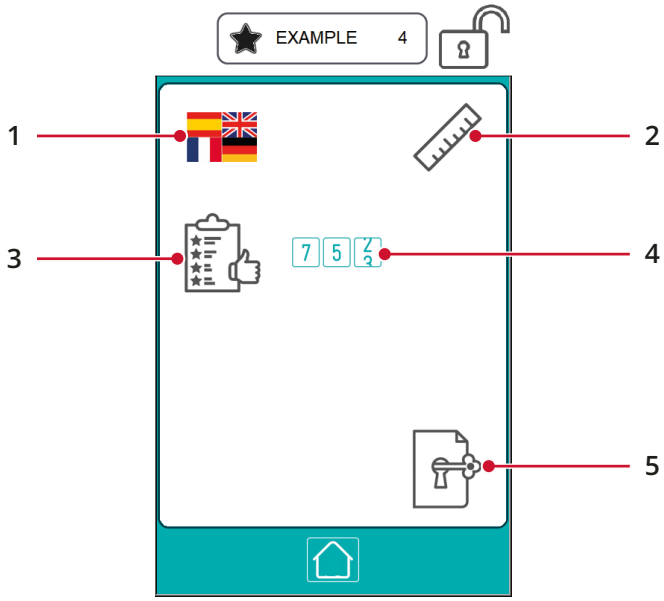
Numeric keypad

Type in the password to access the area reserved for specialist operators.

Key

Press to confirm.

Path:	SMART	PSW	HOME	GRID



Icon

Press to access the “LANGUAGE SELECTION” page (see para. “” pag. 84).

Icon

Press to access the “UNIT OF MEASUREMENT” page (see para. “” pag. 85).

Icon

Press to access the “OPTIONS CHOICE” page (see para. “” pag. 86).

Icon

Press to access the “METERS” page (see para. “” pag. 89).

Icon

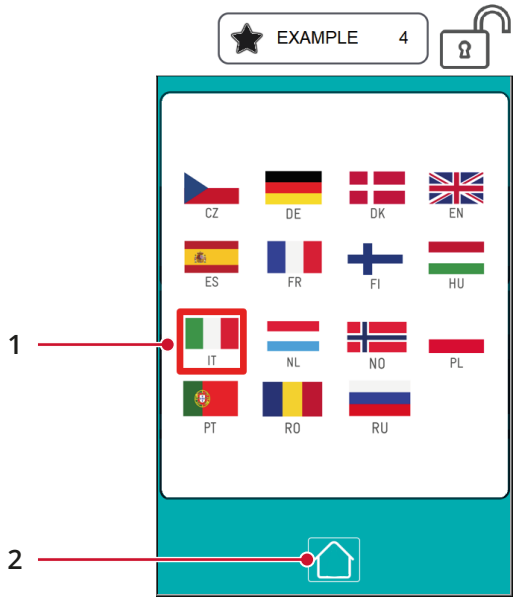
Press to access, via password, the page with parameters reserved for qualified Technicians, authorised by the Manufacturer.

WARNING

Access to the page reserved for Technicians is forbidden to the machine operator.

Language selection

Path: **SMART** **PSW** **HOME** **GRID**

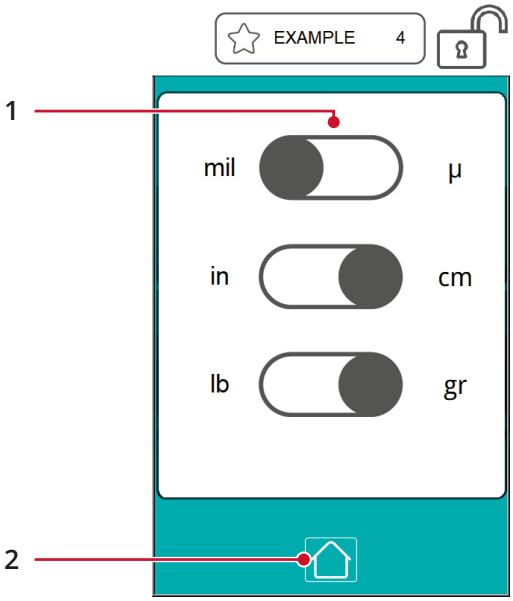


1) **Icons**
Press the icon for the language to be set in the software.
The currently set language is highlighted with a red box.

2) **Key**
Press to confirm and return to the “HOME”.

Unit of measurement

Path: **SMART** **PSW** **HOME** **GRID**



1) **Selectors**

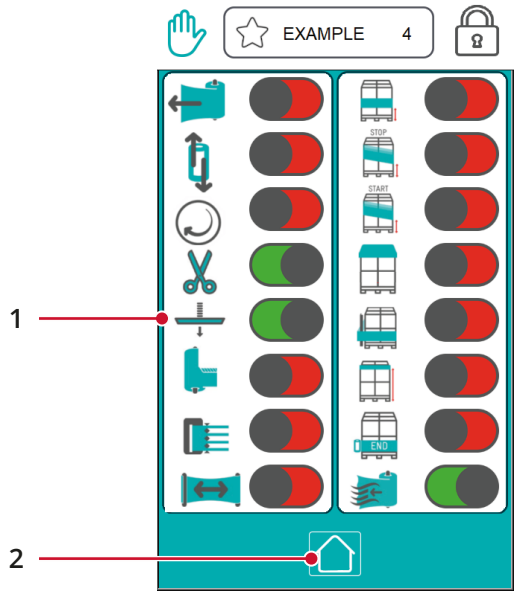
Press the selector in the position at which to bring the relative cursor by selecting the desired unit of measurement from those available.

2) **Key**

Press to confirm and return to the “HOME”.

Options choice

Path: **SMART** **PSW** **HOME** **GRID**



ON / OFF selectors

Bringing the selector to the ON position (shown with the green colour) enables the corresponding function; its settings can be changed through the software pages.

Bringing the selector to the OFF position (shown with the red colour) disables the corresponding function; its settings cannot be modified by the software pages.

Key

Press to confirm and return to the “HOME”.

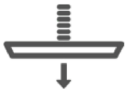
The functions available are:

F13: PULL

F03-F04: TROLLEY UP / DOWN

F02: TABLE ROTATION

F26: FILM CUT

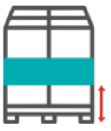


F21: PRESSER ACTIVATION

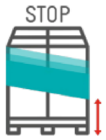
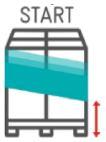
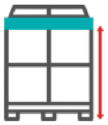
F34: CREASING

F65: STRIP CUTTING

F17: PRE-STRETCH

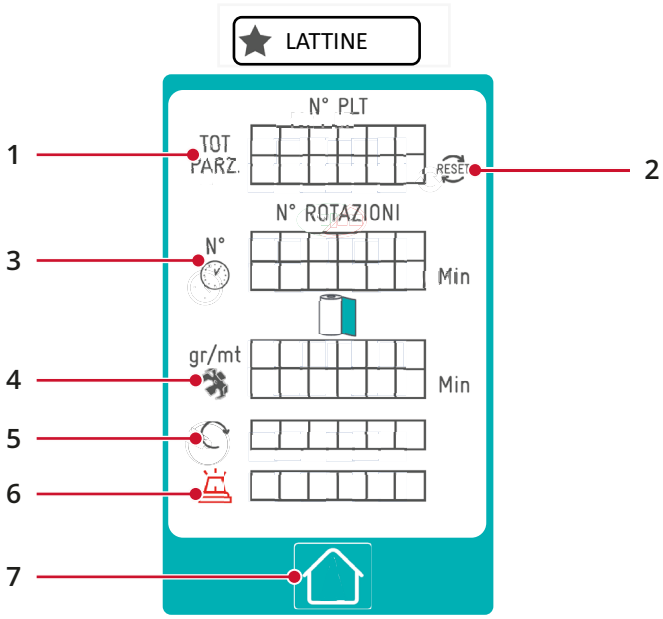


F08: HEIGHT AT WHICH TO PERFORM THE REINFORCEMENT WRAPS

	**F11**: CYCLE END HEIGHT
	**F10**: CYCLE START HEIGHT
	**F22-V01**: SHEET FEEDER CYCLE
	**F29**: SOFT START CYCLE
	**F09**: WRAPPING HEIGHT ADJUSTMENT
	**F64**: NUMBER OF FINAL LOW WRAPS
	**F40**: ARYA

Meters

Path:	SMART	PSW	HOME	GRID	
					



1) **H323-H424**
Text field
Total and partial cycle meter.

2) **H020-H121**
Key
Resets the partial meter.

3) **H020-H121**
Text field
Displays the number of ignitions and the total ignition time.

4) **H525-H626**
Text field
Displays the total film consumed and the number of roller rotations.

5) **H828**
Text field
Displays the number of rotations.

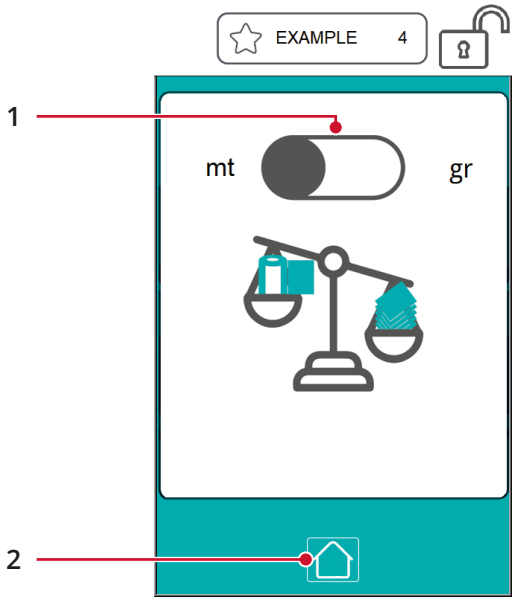
6) **H727**
Text field
Report the number of alarms.

7) **Key**
Press to save the set values and to return to the “HOME”.

FILM CONSUMPTION POP UP

INFORMATION

If the film consumption reading option is activated at the end of each cycle, a pop-up appears indicating how much film is used.



1) **Selector switch**

It is possible to express the quantity of film consumed in meters (mt) or grams (gr) by changing the cursor position.

2) **Key**

Press to confirm.

FUNCTIONS

X	**F01**	Set cycle: **V01** ascent and descent; **V02** ascent or descent; **V03** manual; **V05** layers; **V06** eco; **V07** high stability
X	**F02**	Table rotation speed: 05 ÷ 100
X	**F03**	Trolley ascent speed: 05 ÷ 100
X	**F04**	Trolley descent speed: 05 ÷ 100
X	**F05**	Number of bottom wraps
X	**F06**	Number of top wraps
X	**F07**	Number of intermediate wraps (**F08**)
X	**F08**	Height at which wraps are performed (**F07**), referred to the centre of the film (as the roll is 50 cm high, values of less than 25 cm cannot be set) **NOTE:** the stretch is set in parameter **F32** while the pre-stretch is set in parameter **F33** (only for the PS (MPS2) carriage)
X	**F09**	Strip of film placed over the top of the product
X	**F10**	Height at which the winding cycle begins, referred to the lower edge of the roll of film
X	**F11**	Height at which the winding cycle ends, referred to the lower edge of the roll of film
X	**F12**	Height at which the carriage stop rising, referred to the upper edge of the roll of film (product presence photocell disabled)
X	**F13**	Tension of the film on the product during the reinforcement wraps at base and middle (**F08**) of the product: 0 ÷ 100
X	**F14**	Film tension on the product during trolley ascent: 0 ÷ 100
X	**F15**	Tension of the film on the product during the reinforcement wraps at the top of the product: 0 ÷ 100
X	**F16**	Film tension on the product during trolley descent: 0 ÷ 100
X	**F17**	Elongation of the film during the reinforcement wraps at the base of the product: 120 ÷ 400
X	**F18**	Film stretching during trolley ascent: 120 ÷ 400

X	**F19**	Elongation of the film during the reinforcement wraps at the top of the product: 120 ÷ 400
X	**F20**	Elongation of the film during descent of the trolley: 120 ÷ 400
X	**F21**	Cycle with presser unit (Opt.): enabled **1** or disabled **0**
X	**F22**	Sheet feeder cycle: including **V01** or excluding **V00**
X	**F23**	Trolley descent height with **F22** = **V01**
X	**F24**	Thickness of film being used: 10 ÷ 35 microns (Opt: for models with film consumption in metres, set the diameter of the measurement roller from 60 ÷ 120 mm)
X	**F25**	End delay of the pressure descent (adjustment of pressure on product)
X	**F26**	Cycle with cutting (Opt.): **0** = excluded, **1** included with one blade stroke, **2** included with two blade strokes
X	**F27**	Time for which the movement of the machine continues to tension the film before cutting to create a tension
X	**F28**	Time for which the rollers are unlocked to allow the film to exit
X	**F29**	Film extraction time with light tension at the beginning of the cycle
X	**F30**	Upward cycle in steps of the roll holder carriage; **0** = disabled
X	**F31**	Number of step revs (**F30**)
X	**F32**	Elongation of the film during wraps of the step cycle
X	**F33**	Film tension on the product during wraps of the step cycle
X	**F34**	Number of initial creasing wraps at the base of the product (after **F05** wraps with film open); if = **0**, do not perform creasing at the base
X	**F35**	**0**: creasing in ascent disabled **1**: creasing complete in ascent

X	**F36**	Number of creasing wraps at the top of the product (Opt: advanced creasing) before performing creasing wraps, it rises by **F63** cm; if **F36** = **0**, it does not perform creasing at high rotations
X	**F37**	**0**: creasing in descent disabled **1**: creasing complete in descent
X	**F38**	Number of final wraps at the base of the product; if **F38** = **0**, do not perform creasing
X	**F39**	Creasing
X	**F40**	Optional Arya
X	**F41**	Height at which the trolley is positioned to attach the film during blowing
X	**F42**	Film extraction time during the attachment phase: for the first half of **F42** the 2 series of fans (external and internal) blow air at 100% of their capacity, for the second half of **F42** the external series of fans works at 100% and the internal one at 50%
X	**F43**	Film extraction time during the attachment phase: the 2 sets of fans (external and internal) blow air at 50% of their capacity
X	**F44**	Rotation speed during phases **F42** and **F43**
X	**F45**	Film delivery speed during time **F42**
X	**F46**	Film delivery speed during time **F43**
X	**F59**	Presser ascent time on pallet
X	**F60**	Presser ascent time in the cycle with **F21** = **V01**
X	**F61**	Number of reinforcement wraps at the restart of the layered cycle (optional, **F01** = **V05**)
X	**F62**	Comfort position: including **1**, excluding **0**
X	**F63**	Further ascent of the trolley after high wraps: 0 ÷ 50
X	**F64**	Number of wraps at the base of the product at the end of the cycle
X	**F65**	**0**: strap cutter disabled **1**: strap cutter enabled

X	**F66**	**0**: strap cutter at the top of the disabled product **1**: strap cutter at the top of the enabled product
X	**F67**	Time for which the film remains whole before the strap cutter blades are activated: 0.01 ÷ 20 seconds
X	**F68**	Time for which the film remains whole before the trolley descends: 0.01 ÷ 20 seconds
X	**F69**	Time for which the film continues to be strapped before the blades are deactivated: 0.01 ÷ 20 seconds
X	**F70**	**V0**: additional reinforcement wraps disabled for **SET 1** **V1**: additional reinforcement wraps enabled only in ascent for **SET 1** **V2**: additional reinforcement wraps enabled only in descent for **SET 1** **V3**: additional reinforcement wraps enabled in ascent and descent for **SET 1**
X	**F71**	Number of additional reinforcement wraps for **SET 1**
X	**F72**	Height at which to perform the additional reinforcement wraps **SET 1**
X	**F73**	**V0**: additional reinforcement wraps disabled for **SET 2** **V1**: additional reinforcement wraps enabled only in ascent for **SET 2** **V2**: additional reinforcement wraps enabled only in descent for **SET 2** **V3**: additional reinforcement wraps enabled in ascent and descent for **SET 2**
X	**F74**	Number of additional reinforcement wraps for **SET 2**
X	**F75**	Height at which to perform the additional reinforcement wraps **SET 2**

X	**F76**	**V0**: additional reinforcement wraps disabled for **SET 3** **V1**: additional reinforcement wraps enabled only in ascent for **SET 3** **V2**: additional reinforcement wraps enabled only in descent for **SET 3** **V3**: additional reinforcement wraps enabled in ascent and descent for **SET 3**
X	**F77**	Number of additional reinforcement wraps for **SET 3**
X	**F78**	Height at which to perform the additional reinforcement wraps **SET 3**
X	**F79**	**V0**: additional reinforcement wraps disabled for **SET 4** **V1**: additional reinforcement wraps enabled only in ascent for **SET 4** **V2**: additional reinforcement wraps enabled only in descent for **SET 4** **V3**: additional reinforcement wraps enabled in ascent and descent for **SET 4**
X	**F80**	Number of additional reinforcement wraps for **SET 4**
X	**F81**	Height at which to perform the additional reinforcement wraps **SET 4**
X	**F82**	**V0**: additional reinforcement wraps disabled for **SET 5** **V1**: additional reinforcement wraps enabled only in ascent for **SET 5** **V2**: additional reinforcement wraps enabled only in descent for **SET 5** **V3**: additional reinforcement wraps enabled in ascent and descent for **SET 5**
X	**F83**	Number of additional reinforcement wraps for **SET 5**
X	**F84**	Height at which to perform the additional reinforcement wraps **SET 5**
X	**F85**	Film tension during additional ascent reinforcement wraps
X	**F86**	Film tension during additional descent reinforcement wraps
X	**F87**	Film elongation during additional ascent reinforcement wraps

X	**F88**	Film elongation during additional descent reinforcement wraps

ALARMS

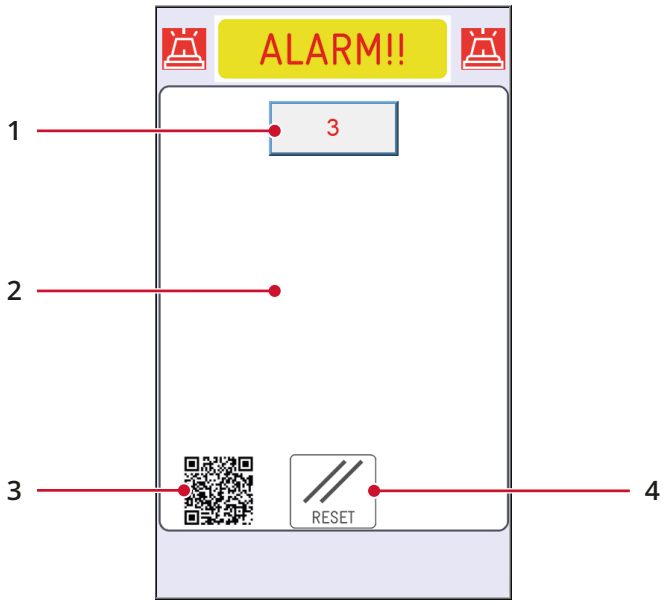
If an error is triggered, the operator panel software will automatically open the alarms page.

The error code is shown in field **(1)**.

Field **(2)** provides a brief description of how to resolve the error.

Once the operator has resolved all the active errors it is possible to press the key **(4)**.

Through the QR Code **(3)** it is possible to consult the alarm manual of the machine.



ALARM LIST

Code	Description	Causes	Solutions
E01	Transpallet photocell interrupted	- The safety photocell is activated. - The photocell has no obstacles but the signal does not get to the card.	- Remove the obstacle / check the mirror on the safety photocell. - Make sure the photocell is operating and the LED changes status when an obstacle is inserted. If it is not working, replace it. Check the continuity of the cable with the signals on the panel 1+ and 8.3. Replace if broken.
E02	Rotation or running anomaly, motor blocked	- The sensor does not read the petals because it is too far from the phonic wheel. - The sensor does not read the petals because the phonic wheel is broken or crooked. - The sensor does not send the signal to the card. - The motor seems to rotate at less than 500 rpm for more than 2.5 s. - The machine does not move, even with manual controls.	- Adjust the position of the sensor compared to the petals of the phonic wheel (distance < 2 mm). - Fix / replace the phonic wheel. - Check the correct operation of the sensor, bringing it close to a metallic object. If the LED lights up, replace the cable, if the sensor does not work, it needs to be replaced. - If the robot is rotating on unsuitable flooring (carpet), choose a smooth and flat floor that is not slippery. If the alarm occurs during slowing, the sensor is not reading all the petals of the phonic wheel. - The drive or inverter does not receive consent to start, check the wiring. The drive or inverter is faulty, communicate the code shown on the latter. For a DC motor, check the brushes. The motor cable is not connected well, check the wiring and tightness, even on the brake, if present. The electromechanical brake on the motor, if present, may not release. If this occurs, it must be adjusted or replaced. The motor unit may be damaged or defective; replace it.
E03	Restart after power outage.	- The card restarted. - The machine shut down and shows this warning.	- Press the RESET key. - There was a power outage and the machine shut down and then restarted: Press the RESET button (no power) or bell (touch).
E04	Carriage, crush prevention limit switch triggered	- Obstacle below the carriage. - The E04 alarm persists without any obstacle.	- Remove the obstacle and press RESET. - Check the proper mechanical operation of the micro and the crush-prevention plate. If a sensor is broken or the plate is deformed, they must be replaced. Check the electrical contacts and that the signal reaches the card. If the sensor is broken or the cable is interrupted, replace it.

Code	Description	Causes	Solutions
E08	Carriage ascend/descend anomaly	- The sensor does not read the petals because it is too far from the phonic wheel. - The carriage only moves in one direction. - The sensor does not send the signal to the card. - The roll holder carriage does not move, even with manual controls.	- Adjust the position of the sensor compared to the petals of the phonic wheel (distance < 2 mm). If the phonic wheel is broken or damaged, it must be replaced. - Check if the control signal reaches the drive, then verify if the status LED is lit. Check if the carriage limit switch is pressed or blocked. - Check the correct operation of the sensor, bringing it close to a metallic object. If the LED lights up, replace the cable, if the sensor does not work, it needs to be replaced. - The drive or inverter does not receive consent to start, check the wiring. The drive or inverter is faulty, communicate the code shown on the latter. For a DC motor, check the brushes. The motor cable is not connected well, check the wiring and tightness, even on the brake, if present. The motor unit may be damaged or defective; replace it. Check the battery.
E09	Stop after film breakage or film end.	- The film roll is finished. - The film flap came off or the film is broken. - The film does not come out. - The film is not properly connected to the product.	- Change the roll. - Hook the film back on the pallet. - Check the proper operation of the dancer sensor removing the film and operating it manually. If it does not work, make sure the sensor is operating properly. The film pull value is high, lower it. - If the film does not glide within the carriage for first **(x)** seconds, the alarm is triggered. Attache the film tighter.
E10	Carriage limit switch error	- Wiring or power outage error	- Check the limit switch wiring and power Check the carriage motor brushes.
E11	Low limit switch error: it did not close during carriage ascent	- Carriage motor blockage - Limit switch faulty or blocked.	- Check the carriage motor (motor brushes). - Unblock the sensor or replace it if faulty. Check the carriage motor brushes.
E12	High limit switch error: it did not close during carriage descent	- Carriage motor blockage - Limit switch faulty or blocked.	- Check the carriage motor (motor brushes). - Unblock the sensor or replace it if faulty.
E13	Low limit switch error: it opened during carriage ascent	- The carriage moves in the opposite direction.	- Invert the rotation direction or the limit switches are inverted.
E14	High limit switch error: it opened during carriage descent	- The carriage moves in the opposite direction.	- Invert the rotation direction or the limit switches are inverted.

Code	Description	Causes	Solutions
E16	Emergency intervention	- Emergency button pressed. - Carriage door open.	- Unblock the button and restore the power circuit. - Close the door and restore the power circuit. If FE or FM carriage, check the bridge on the connector. Check the emergency microswitch.
E20	Non-volatile memory error functions (I2C) #0	- No response from memory.	- Replace the memory I^2C (24LC256).
E21	Non-volatile memory error functions (I2C) #1	- Memory timeout.	- Replace the memory (24LC256).
E22	Non-volatile memory error functions (I2C) #2	- Communication error.	- Replace the memory (24LC256).
E23	Non-volatile memory error functions (I2C) #3	- Communication error.	- Replace the memory (24LC256).
E24	Non-volatile memory error functions (I2C) #4	- Memory occupied.	- Replace the memory (24LC256).
E25	Non-volatile memory error functions (I2C) #5	- Write error.	- Replace the memory (24LC256).
E26	Non-volatile memory error hidden parameters (EE) #1	- Periphery occupied.	- Replace the microcontroller (PIC).
E27	Non-volatile memory error hidden parameters (EE) #2	- Interruption during writing.	- Replace the microcontroller (PIC).
E28	Non-volatile memory error hidden parameters (EE) #3	- Failed check given after writing.	- Replace the microcontroller (PIC).
E29	Non-volatile memory error hidden parameters (EE) #4	- Timeout writing data.	- Replace the microcontroller (PIC).
E50	Error in creasing position sensors	- Both sensors are engaged.	- Check the proper electrical wiring or proper installation and mechanical operation.
E51	Creasing locked during closure	- Creasing blocked on the top sensor.	- Check motor operation. - Check electrical connection - Make sure there are no mechanical obstacles. - Check sensor operation
E52	Creasing block during opening	- Creasing blocked on the bottom sensor.	- Check motor operation. - Check electrical connection - Make sure there are no mechanical obstacles. - Check sensor operation

Code	Description	Causes	Solutions
E53	Top limit switch error: did not engage during ascent command (creasing)	- The carriage blocked during ascent.	- Check motor operation. - Check operation of the top sensor and replace if broken. - Make sure there are no mechanical obstacles.
E54	Bottom limit switch error: did not engage during descent command (creasing)	- The carriage blocked during descent.	- Check motor operation. - Check operation of the bottom sensor and replace if broken. - Make sure there are no mechanical obstacles.
E55	Low limit switch error: it closed while the carriage was ascending	- The carriage motor runs in reverse.	- Check motor operation. - Check operation of the bottom sensor and replace if broken. - Make sure there are no mechanical obstacles.
E56	Upper limit switch error: it closed during the descent of the carriage	- The carriage motor runs in reverse.	- Check motor operation. - Check operation of the top sensor and replace if broken. - Make sure there are no mechanical obstacles.
E60	Presser plate lock (timeout 20" ascent without intervention of the upper limit switch of the presser)	- The carriage locked during movement.	- Check the inverter or, if pneumatic, the presence of compressed air. - Check piston freedom of movement. - Check that the magnetic sensor is reading the piston cam.
E61	Presser plate lock (timeout 20" in descent without intervention of the presser plate)	- The carriage locked during movement.	- Check inverter.
E62	Presser carriage descending but the presser plate is out of position, cannot detect pallet (tables)	- Presser plate blocked.	- Manually rotate the presser plate. The presser plate cam must pass <2 mm from the sensor. Check the correct operation of the sensor, bringing a metallic object near it. If the LED lights up, check the cable, if the sensor does not signal anything, replace it.
E63	Presser piston in descent but the high sensor is not engaged	- The sensor is out of position, the piston is locked or there is no compressed air.	- Check sensor position. - Check piston freedom of movement. - Check for the presence of compressed air.
E64	Presser carriage encountered the film carriage first, but not the pallet (Tables)	- The pallet is too low.	- To wrap, exclude the presser.
E65	During the descent of the presser carriage the upper limit switch of the presser does not disengage	- The carriage does not move or the limit switch is broken.	- Check the status of the limit switch. - Check freedom of movement of the carriage.

Code	Description	Causes	Solutions
E66	During the ascent of the presser carriage, the presser sensor or the low film limit switch engages	- The carriage motor runs in reverse.	- Check motor operation.
E67	During the descent of the presser carriage, the high sensor of the presser carriage engages	- The carriage motor runs in reverse.	- Check motor operation.
E90	The entry photocell engaged during transport of a pallet on the rotating roller unit (tables)	- Pallet out of position.	- Reposition the pallet and check the photocell operation.
E91	Attempt to start the platform while a photocell on the entry and exit of the rotating roller unit is engaged (Tables)	- Pallet in transit.	- Remove the pallet.
E92	Alarm, rotating roller unit already engaged during loading of a new pallet: the photocells on the roller unit must both be free before loading (Tables)	- Pallet unloading while a new one is loading.	- First unload the pallet in transit, then load the new one.
E93	Alarm detected non standard pallet on the rotating roller unit: the photocells on the roller are both engaged during loading. (Tables)	- The pallet is too long.	- Remove the pallet.
E94	Alarm, platform out of phase during pallet transport into and out of the roller unit (Tables)	- The table was not set in phase.	- Exit automatic mode and turn the table in phase.
E95	Alarm, exit occupied while unloading the pallet from the rotating roller unit. The two photocells on the unloading line are both engaged. (Tables)	- The photocells are engaged.	- Check the status of the photocells.
E96	Alarm, maximum timeout during pallet loading (Tables)	- Timeout loading pallet.	- Check loading of the pallet.

Code	Description	Causes	Solutions
E97	Alarm, maximum timeout during pallet unloading (Tables)	- Timeout unloading pallet.	- Check loading of the pallet.
E99	Alarm maximum timeout during transport of a pallet on the entry roller units (Tables)	- Timeout transporting pallet.	- Check the pallet transport on the roller units.
Ed0	A damaged input has been detected on JP3 JP7 JP8 JP9 (including RESET input)		
Ed2	Overload, short to ground, short to supply of the JP6.2 output		
Ed3	Overload, short to ground, short to supply of the JP6.3 output		
Ed4	Overload, short to ground, short to supply of the JP6.4 output		
Ed5	Overload, short to ground, short to supply of the JP6.5 output		
Ed6	Overload, short to ground, short to supply of the JP6.6 output		
Ed7	Overload, short to ground, short to supply of the JP6.7 output		
Ed8	Overload, short to ground, short to supply of the JP6.8 output		
Ed9	Overload, short to ground, short to supply of the JP6.9 output		

Code	Description	Causes	Solutions
EdA	Generic momentary fault on connector JP6 (it has not been identified on which channel)		
EdF	Short circuit or overload on the JP10 clutch output		

Restart after an alarm or as result of torn / finished film

- Wait until the machine has stopped and brought the trolley to the reel replacement level (alarm **E09**).
- Solve the problem that triggered the alarm or replace the reel should this be finished, attach the film to the pallet again.
- Press the **BLUE REFRESH** key **(2)**, if present.
- Reset the alarm by pressing the **RESET (E)** key located on the control panel.
- Press the **START** button **(1)** on the machine for 3 seconds.

FROMM | WRAPPING SOLUTIONS

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