POWERSQUARE SHEET FEEDER

OPERATOR MANUAL

POWERSQUARE SHEET FEEDER

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12. Environmental Compliance   100

1. INTRODUCTION

1.1 Foreword

Thank you for choosing a **c.p. bourg** product.

This manual is a guide to operate the Powersquare Sheet Feeder.

Please follow carefully the instructions and you will enjoy years of excellent work with your system.

If you have any difficulty using your equipment, please call us and ask for technical assistance (all the phone numbers are available at the end of this manual).

We will be delighted to help you.

All the information in this publication is based on the latest information available at the time of approval for printing.

We reserve the right to revise this publication and to make changes in the content without obligation to notify such revision or changes.

THIS MANUAL IS INTENDED TO BE USED EXCLUSIVELY
BY QUALIFIED TECHNICAL PERSONNEL

1.2 Warning pictograms

Please pay particular attention to the description of the following pictograms:

Yellow background, caution.

Indicates a hazardous situation that can cause small or severe injury.

Yellow background, caution.

This label is located near the wheel-work of the chain. It indicates a high risk of injury to your fingers if they get stuck between the wheel-work and the chain.

Yellow background, caution.

This label is located near the main power supply.
It indicates that this power supply cabinet may be opened only by qualified personnel.

1.3 Warning pictograms location

CAUTION
ELECTRICAL HAZARD
AUTHORIZED SERVICE
PERSONNEL ONLY

CAUTION
ELECTRICAL HAZARD
AUTHORIZED SERVICE
PERSONNEL ONLY

POWERSQUARE SHEET FEEDER
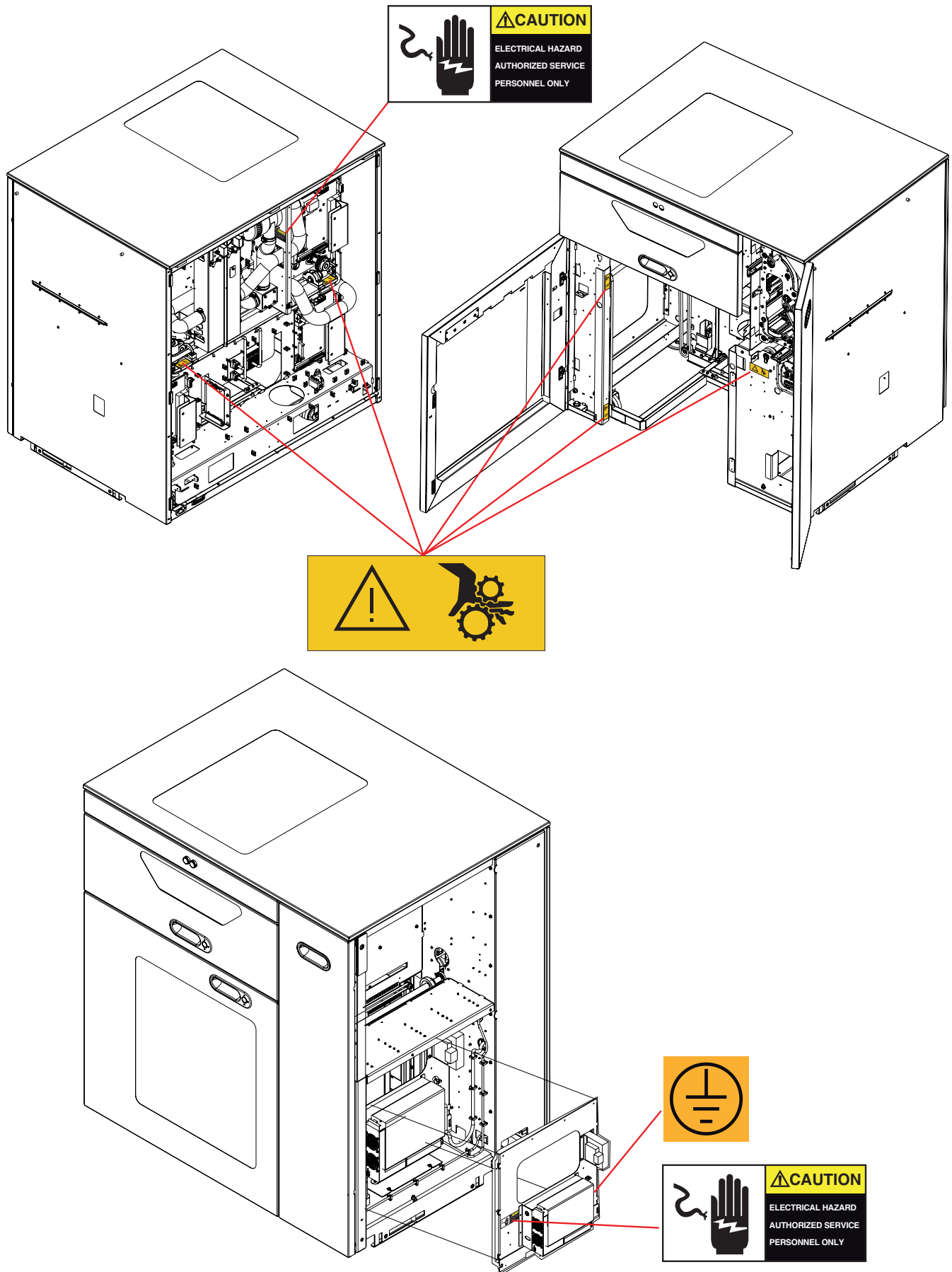
1.4 Online or Nearline configuration

When using a PSF in nearline mode (not connected to a printer), the By-Pass function and so the cover insertion mode are not available.

Therefore some screens will be different.
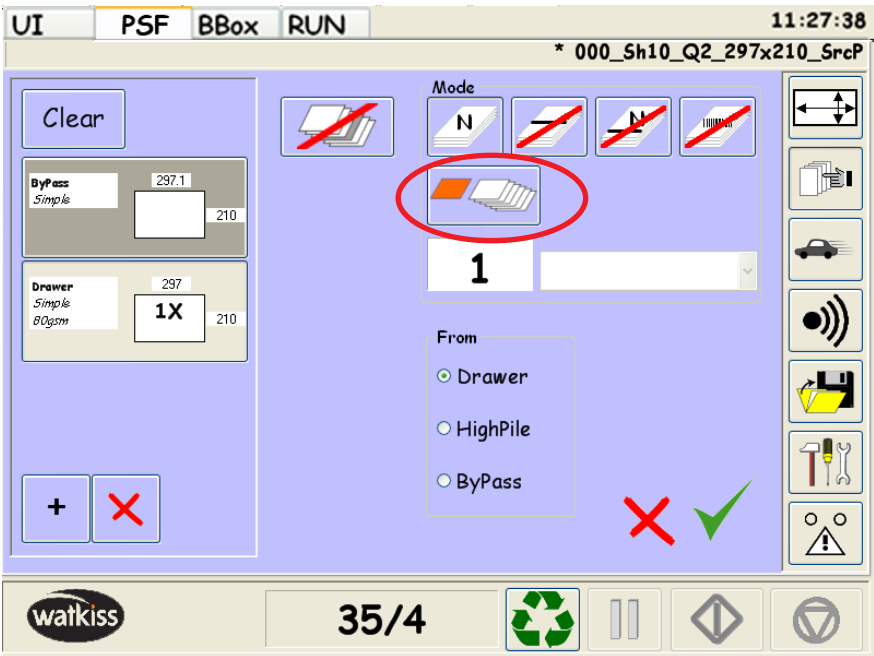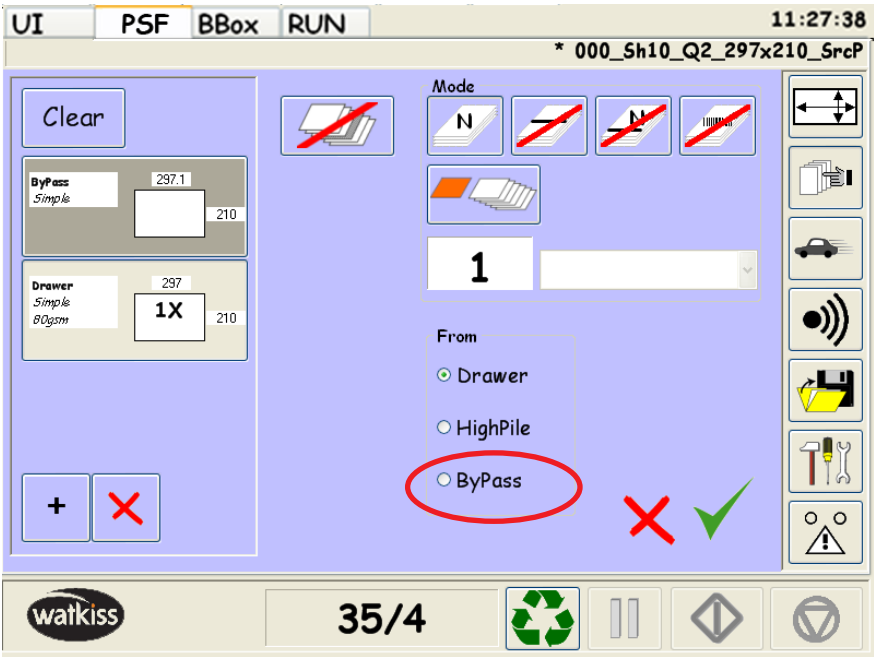
FUNCTIONS DISPLAY ONLY FOR PSF ONLINE CONFIGURATION

POWERSQUARE SHEET **FEEDER**

1.5 Job Definition Format (JDF) Capability

Note: Only for online configuration

A new Web to Finish solution makes touch less workflow achievable from order to finished product with no manual setup or intervention; thus, helping automatic print production by giving the finishing devices an integral role in the manufacturing process.

Integrating finishing equipment capabilities into the job definition at the prepress stage reduces or eliminates operator involvement and reduces or eliminates job setup time.

A new device, called Bourg Box, allows PSF to communicate with any type of digital printer.

The WorkFlow Manager (WFM) embedded in PSF GUI allows the BCME (optional) and the PSF of a BB/BCME/PSF configuration, to be set up for jobs and service using the PSF GUI.

The WFM uses a digital job ticket to set up the finishing equipments automatically.
The job ticket is an XML based file format standard for information exchange in the graphic arts environment.

The JMF synchronization between Ultimate Bindery and the Bourg finisher informs Ultimate Bindery of the finisher status. When the finisher is ready, Ultimate Bindery releases the job at the FFPS queue and the job is printed and finished.

Note: -JDF mode is only enabled with the optional Bourg JDF Kit.

Solution Workflow Diagram

FreeFlow Web Services

1 → JDF instructions and PDF file via JMF

FreeFlow Process Manager

2 → PDF File via Hot Folder

Free Flow Core OnDemand Digital

3

♦ Imposed PDF is submitted via IPP
♦ FFPS returns Job ID

Ultimate Bindery

4 → Release job via IPP

FreeFlow Print Server

Finishing setup info passed in JDF via JMF

5

Press

6 → DFA level 1

Bourg Box

7 → CAN — BIP

GUI — PSF

CAN — BIP

Initial issue: 05/11
Latest revision: 06/13

2.1 General Description

Buttons
START/STOP

Drawer
(Tray)

High Pile Door

Paper output

Input Conveyor Door

3.1 Space requirements for BSF

Dimensions

Width :   - **1330** mm (**52**.**36**")

Depth :   - **913** mm (**35**.**94**")

Height :   - **1316** mm (**51**.**81**")
                                 - **1626** mm (**64**") with User Interface optional

Weight :   - **470** Kg (**1036** Lbs) without optional kit
                                   (GUI, cart with air table, IFB, Bourg Box,...)
                                 - **520** Kg (**1146** Lbs) packed
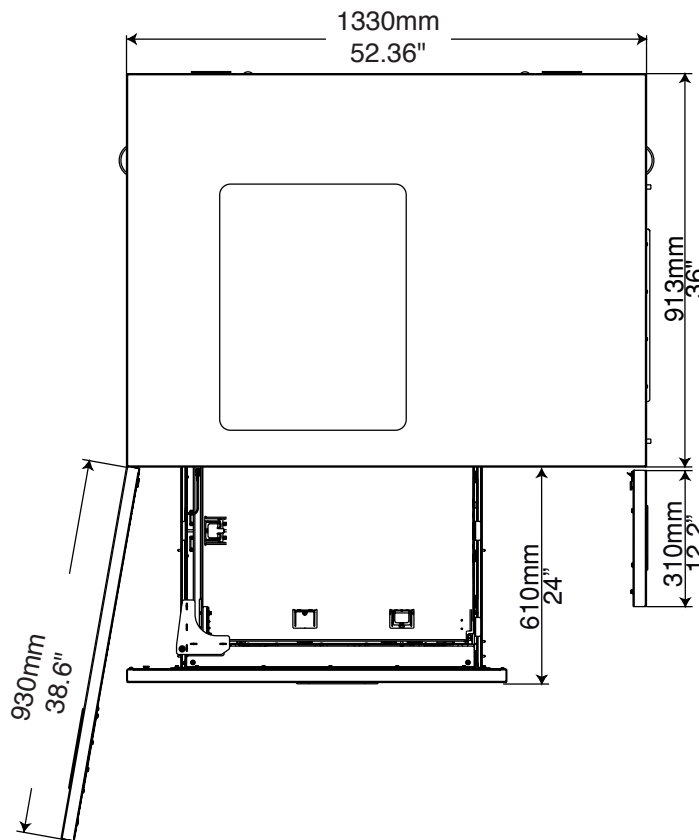
Voltage/ Frequency :   - **120** V - **60** Hz (**1**phase).
                                 - **230** V - **50** Hz (**1**phase).

Ampere :   - **6,5** A at **230** Vac input voltage.
                                 - **10**,**5**A at **120** Vac input voltage.

Power consumption in stand-by : - **160** W
                                 - **546** BTU/H - **200** VA.

Power consumption in operation : - **760** W
                                 - **2580** BTU/H - **1029** VA.

Noise level :   - **75** dB.

3.2 Technical specifications

- Paper format :
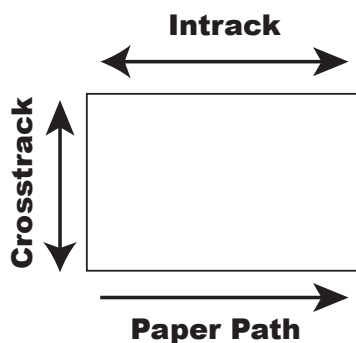
Paper size		Min	Max
Drawer	In-track	**8**" = **203,2** mm	**26**" = **660,4** mm
	Cross track	**4**.**73**" = **120** mm	**14**.**33**" = **364** mm
High Pile	In-track	**8**" = **203,2** mm	**26**" = **660,4** mm
	Cross track	**7**" = **177,8** mm	**14**.**33**" = **364** mm
By Pass	In-track	**8**" = **203,2** mm	**26**" = **660,4**mm
	Cross track	**4**.**73**" = **120** mm	**14**.**33**" = **364** mm

- Paper weight :   **60**-**300** gsm – Uncoated paper.
  60-**350** gsm – Coated paper.

- Input/Output paper height :   **860** mm (**33**.**9**").

- Paper velocity :   from **1000** to **2000** mm/s.

- Drawer capacity : **140** mm (**5**.**5**").

- Paper pile height : **500** mm (**19**.**7**").

- Miss/Double detection :   Standard.

- End of set detection OMR :   Standard.

- Bar Code reader : Optional (from **1** to **4** Bar Code readers).

- Cart compatibility :

XEROX: - DT**6180**-**6135** / Nuvera with DS**3500** & **5000**.
          - PRODUCTION MEDIA CART
          - Docucolor   DC **6000** - **7000** - **8000**
          - Colopress   CP**550** / **560** / **700** / **800** / **1000**
          - **4112** / **4127**
          - IGEN **3**&**4** (**20.5**").
          - IGEN **150** (**26**")

KODAK: - NEXPRESS SX DIGITAL COLOR PRESS (20.5"&26")

          - Canon   Digimaster (B&W) / Digisource

HP INDIGO: - PRESS 7600 CART

          - PALLET

OCE: - Varioprint **6000** Series (**6250** - **6320** - **6200** - **6160**,...)
                       4000 Series (**4120** - **4110**, ...)

KONICA MINOLTA BIZHUB PRESS

- Productivity :

PSF Productivity (SHEETS/H)		
Paper Format	Manual Mode or OMR LE (sheets/h)	Center OMR Mode (sheets/h)
A4 LEF (210mm)	10860	10000
A4 SEF (297mm)	8640	8640
A3	6700	6700
SRA3	6350	6350

PSF PRODUCTIVITY (BOOKLETS/H)			
		Manual Mode or OMR LE	OMR Center
Format	Numbers of sheets	Booklets/h	Booklets/h
A3 (420mm)	3	655	idem OMR LE
	6	655	idem OMR LE
	10	574	idem OMR LE
	15	402	idem OMR LE
	22	283	idem OMR LE
	50	130	idem OMR LE
A4 SEF (297mm)	3	655	idem OMR LE
	6	655	idem OMR LE
	10	655	idem OMR LE
	15	504	idem OMR LE
	22	358	idem OMR LE
	50	166	idem OMR LE
A4 LEF (210mm)	3	655	655
	6	655	655
	10	655	655
	15	613	575
	22	440	411
	50	206	192
Remarks :	OMR LE = OMR Lead Edge reading.		
	OMR Center = OMR Centered reading.		

4. PAPER PROCESS DESCRIPTION

Paper path schematic view.
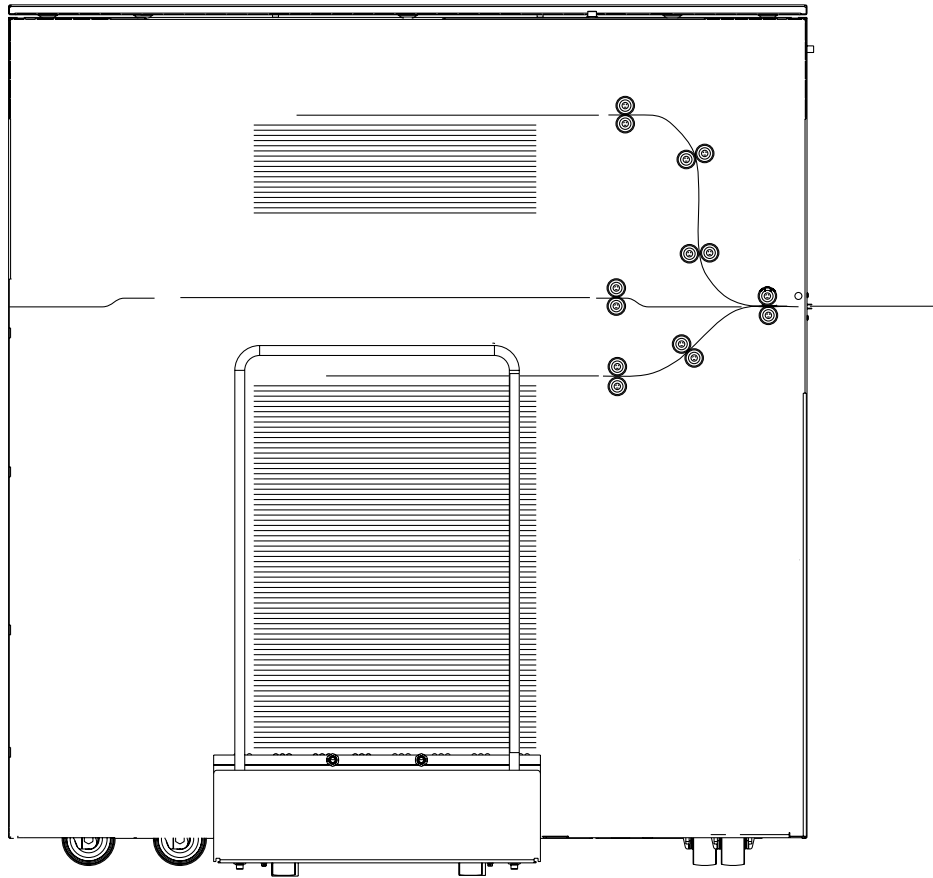
5.1 Power ON/OFF the PSF
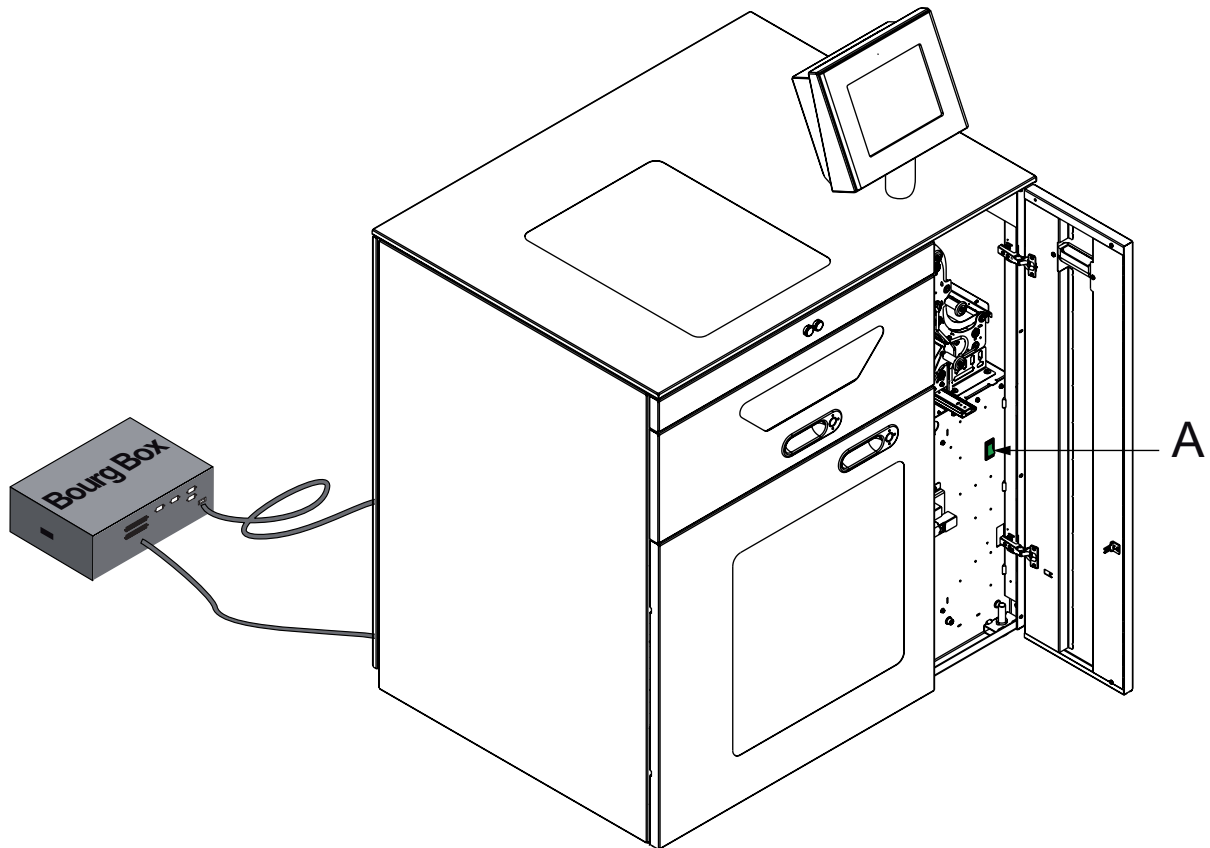
1) Open the conveyor door.

2) Switch ON/OFF the PSF using the Main switch (A).
   The button is highlighted when the machine is ON.

3) Close the conveyor door.

5.2 Use of Drawer and High Pile handles

There are **3** status for the Drawer and High Pile tray :

    1) **<u>Ready</u>** : The tray is up and ready to feed.
    2) **<u>Down</u>** : The tray is at the bottom position.
    3) **<u>Offline</u>** : The tray is stopped between the up and down position. The tray is not used.

The drawing below shows the logic of Drawer and High Pile Handle buttons.
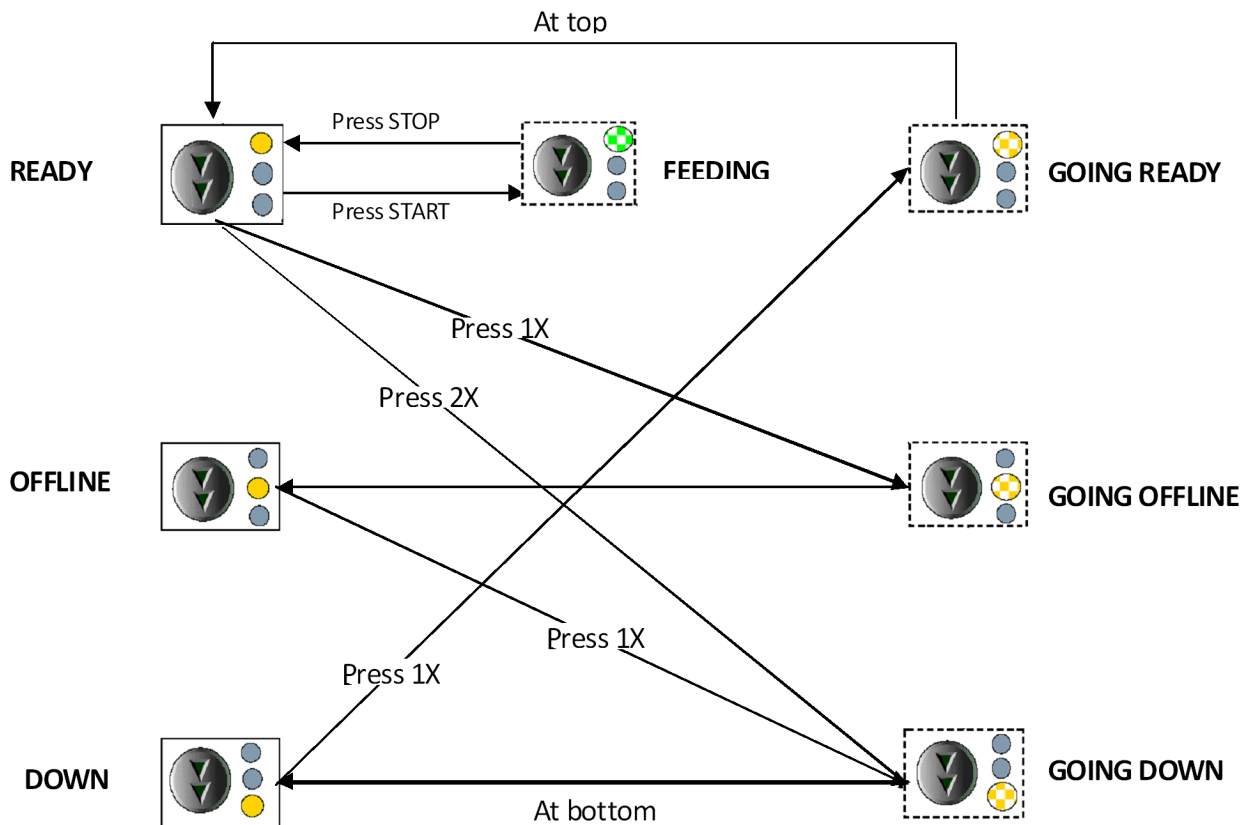
5.3 Use of START/STOP buttons

From any state (Ready, Offline or Down) press green button (START) to start the feeding.
Press black button (STOP) to stop the feeding.

While feeding, press High Pile or Drawer button to make a PAUSE.
Press again the green button (START) to restart the feeding.
Press the black button (STOP) to stop the pause and the feeding.

POWERSQUARE SHEET **FEEDER**
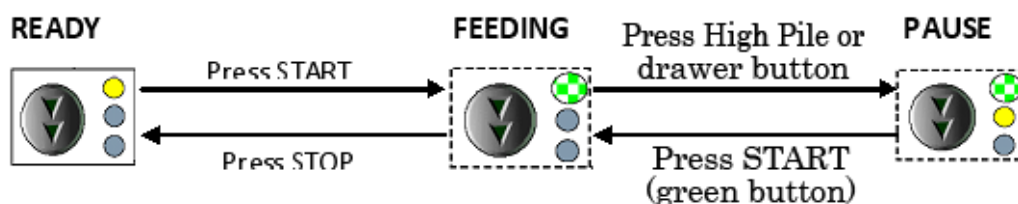
5.4 Drawer loading
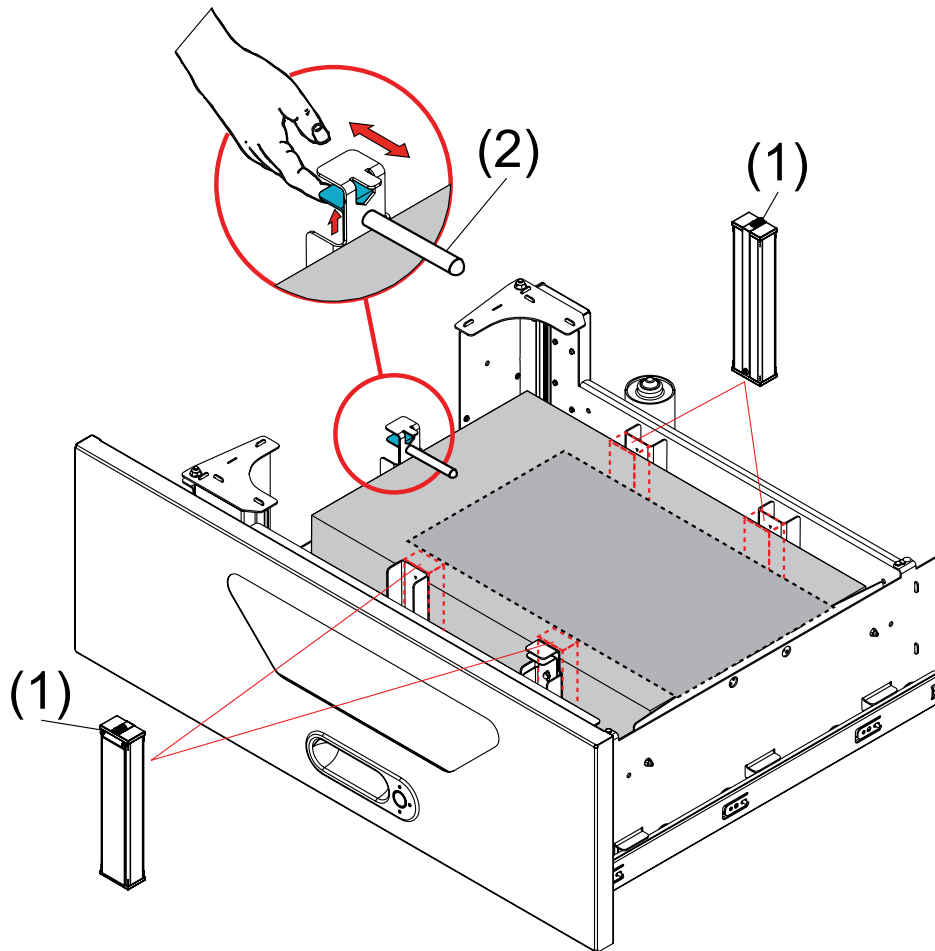
1) Open the Drawer.

Note: To open the Drawer, it must be in down position.

2) Move the stops (**1**).

3) Place paper properly in the Drawer.

4) Adjust the paper guides. Pay attention not to damage the paper edges.

5) Adjust the magnetic guide (**2**) position **5** mm (**0**.**20**") above the pile of paper when the tray is up.

6) Close the Drawer.

*Note: Install the Magnetic Stops (***1***) on the paper guides when using paper format from **4.73**" **(120 mm) to 7" (**177,**8** mm) in the crosstrack direction. Feeding accuracy is also improved in the Drawer when using the paper stops (***1***) for small paper format in the intrack direction (paper format less than **260** mm).*
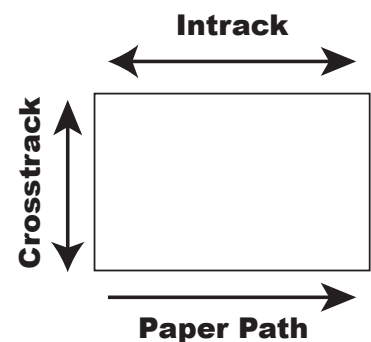
5.5 High Pile manual loading tray

The PSF is provided with a Manual loading tray as shown below
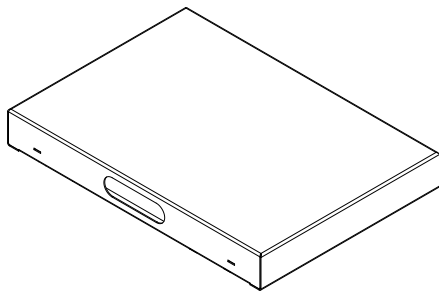
Manual loading tray

*Note: - The blower air level must be adjusted to **0** in the **"Preference Menu"** see chapter "7.6 PSF Preference Menu", page 48*

1) Enter High Pile paper format at UI.
2) Open High Pile door.
3) Install the loading tray **(A)** inside the machine against the stops by positioning the pins from the frame in the holes on the rear of the loading tray as shown below
4) Press simultaneously the two green buttons **(G)**. At this time, the air table connects and the movable stop **(M)** moves in order to position the paper pile.
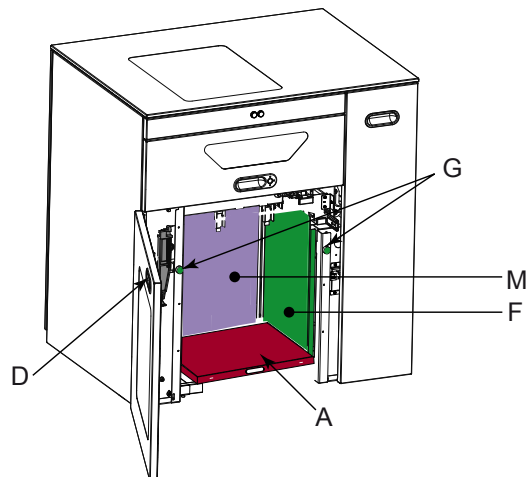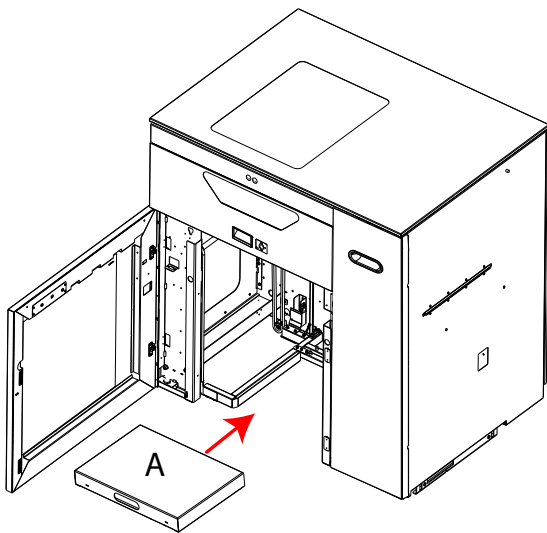
5) Depress both green buttons **(G)** when the moving of the movable stop **(M)** has stopped. Both buttons **(G)** switch on to inform operator that the moving of the movable stop **(M)** is over.
6) Manually move the paper pile against the fixed stop **(F)** and the movable stop **(M)**.
7) Close the door.
8) Press the button on the door handle **(D)**. The support raises and the High Pile paper stops go in position according to the paper format.
9) The PSF is ready to feed.

5.6 High Pile loading with cart (optional)

Note: Please refer to "7.6 PSF Preference Menu", page 48. step 5) when using the ColorPress family Cart.

1) Enter High Pile paper format at UI.

2) Open High Pile door.

3) Push the cart inside the machine against the stops.

4) Depending on model with or without securing bar.
Put the securing bar in the hook provided for this purpose on the left side of the frame **(H)**.

5) Press simultaneously the two green buttons **(G)**. At this time, the air table connects and the movable stop **(M)** moves in order to position the paper pile.
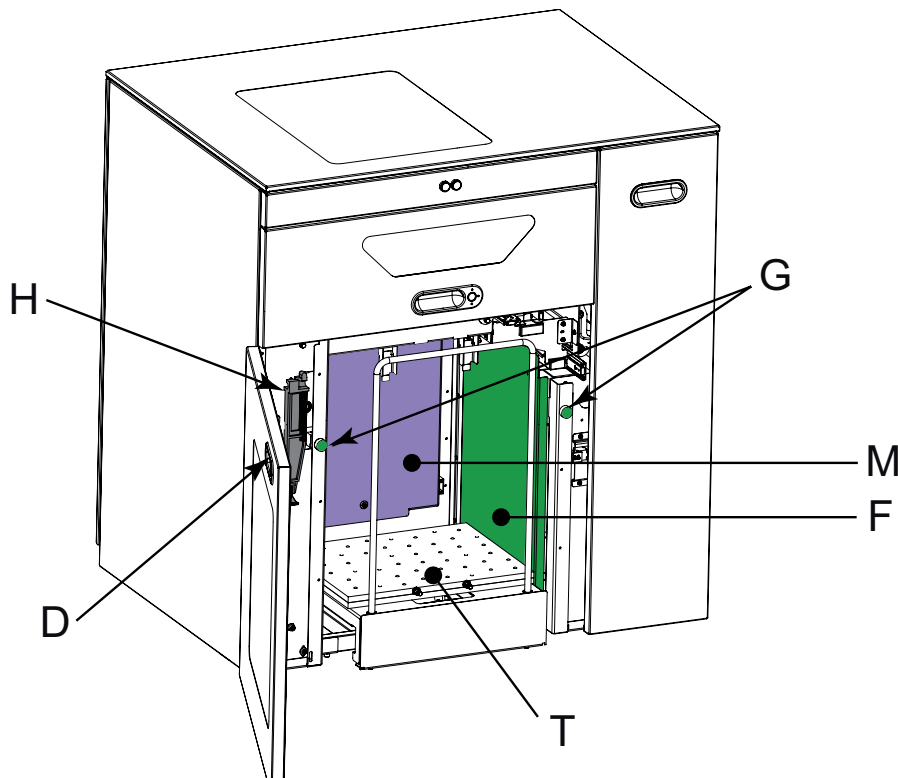
6) Depress both green buttons **(G)** when the moving of the movable stop **(M)** has stopped.
Both buttons **(G)** switch on to inform operator that the moving of the movable stop **(M)** is over.

7) Manually move the paper pile against the fixed stop **(F)** and the movable stop **(M)**.

8) Close the door.

Note: - The blower level can be adjusted by - the RH green button (+).
- the LH green button (-).
*- The default blower level can also be adjusted in the **"Preference Menu"** see chapter "7.6 PSF Preference Menu", page 48.*

9) Press the button on the door handle **(D)**.
The support raises and the High Pile paper stops go in position according to the paper format.

10) The PSF is ready to feed.
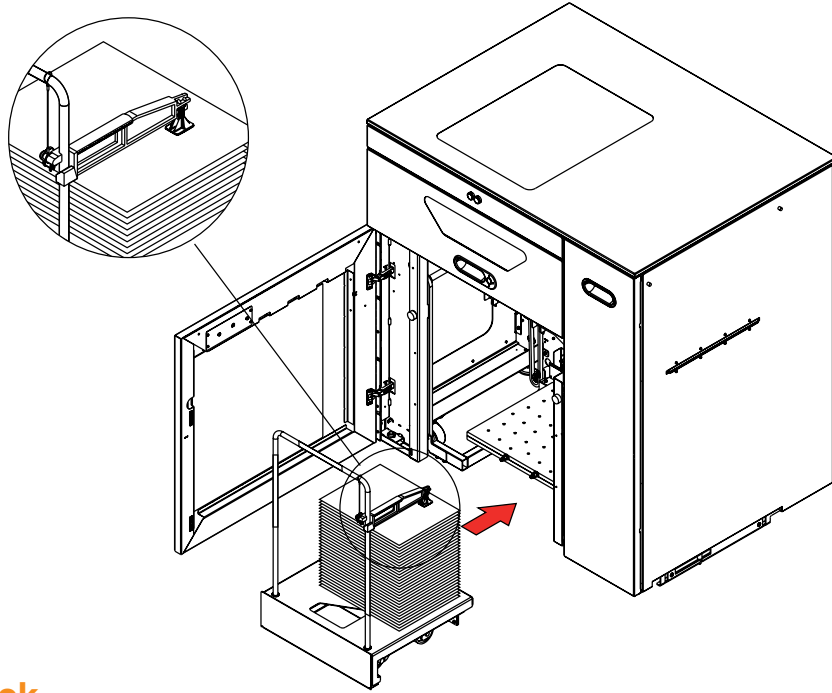
To clamp stack

To release stack

POWERSQUARE SHEET FEEDER
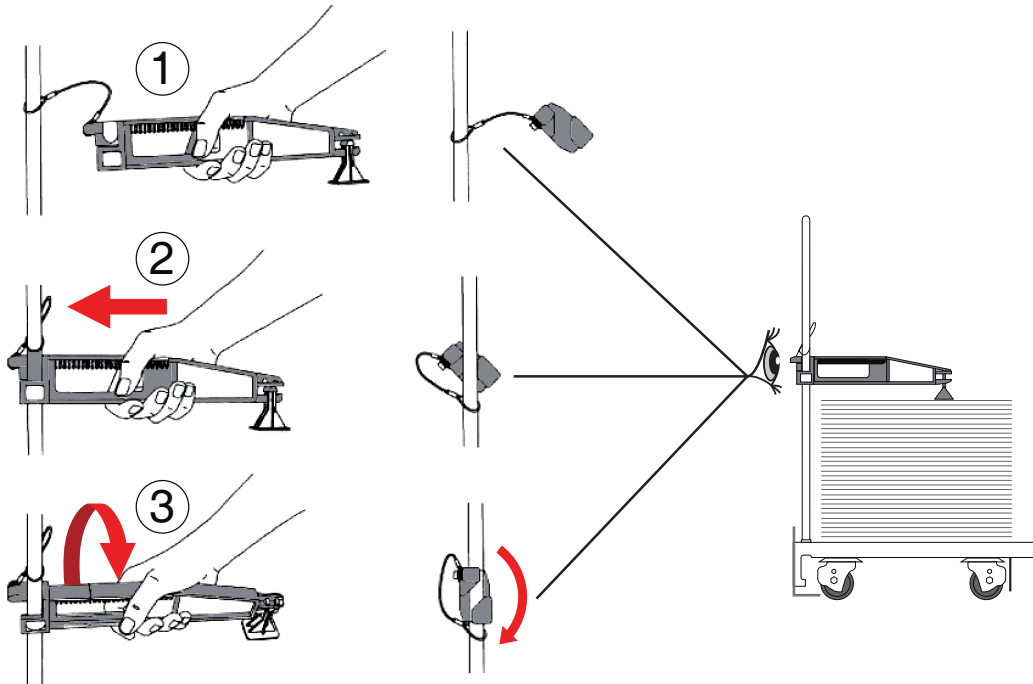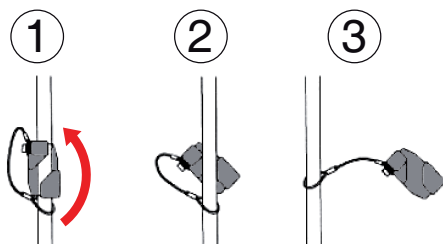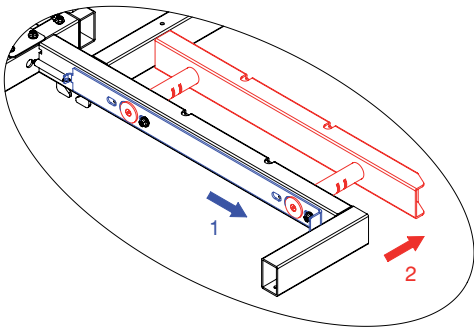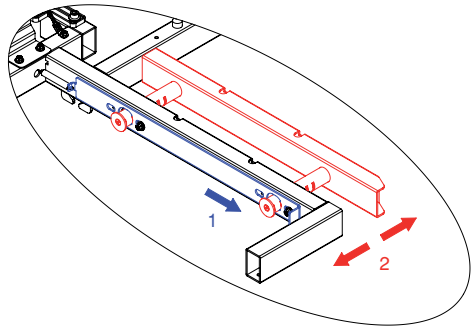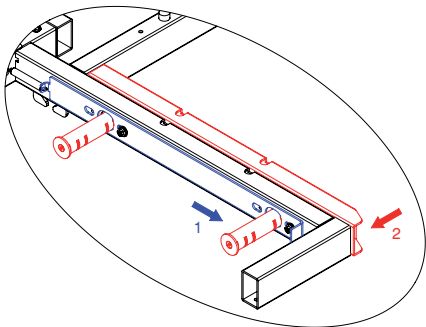
5.7 Lift frame guide adjustment

26" Movable guide position
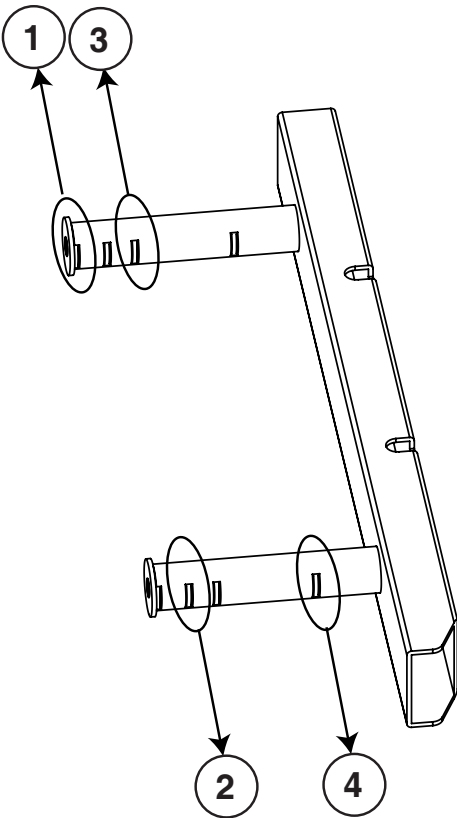
Choose the adjustment of the movable guide corresponding to the cart name as described in the table on next page

Position#	Guide position	Cart name
1		IGEN 3&4 (20.5") DS3500 DS5000 KODAK DIGIMASTER (B&W)
2		HP INDIGO PRESS 7600 CART HP INDIGO PALLET OCE VARIOPRINT 6xxx
3	NOT USED	
4		XEROX IGEN 150 (26") XEROX COLORPRESS XEROX PRODUCTION MEDIA CART XEROX DOCUCOLOR KODAK NEXPRESS SX DIGITAL COLOR PRESS (20.5"&26") KONICA MINOLTA BIZHUB PRESS

5.8 Feed Head baffle adjustment

Adjust the height of the baffle (**1**) in the middle of the holes by loosening screws (**2**).

Lower the baffle to avoid **" double"** when using light paper, curled paper, CD format paper...

Upper the baffle When using very heavy paper **(>= 350 gsm)**
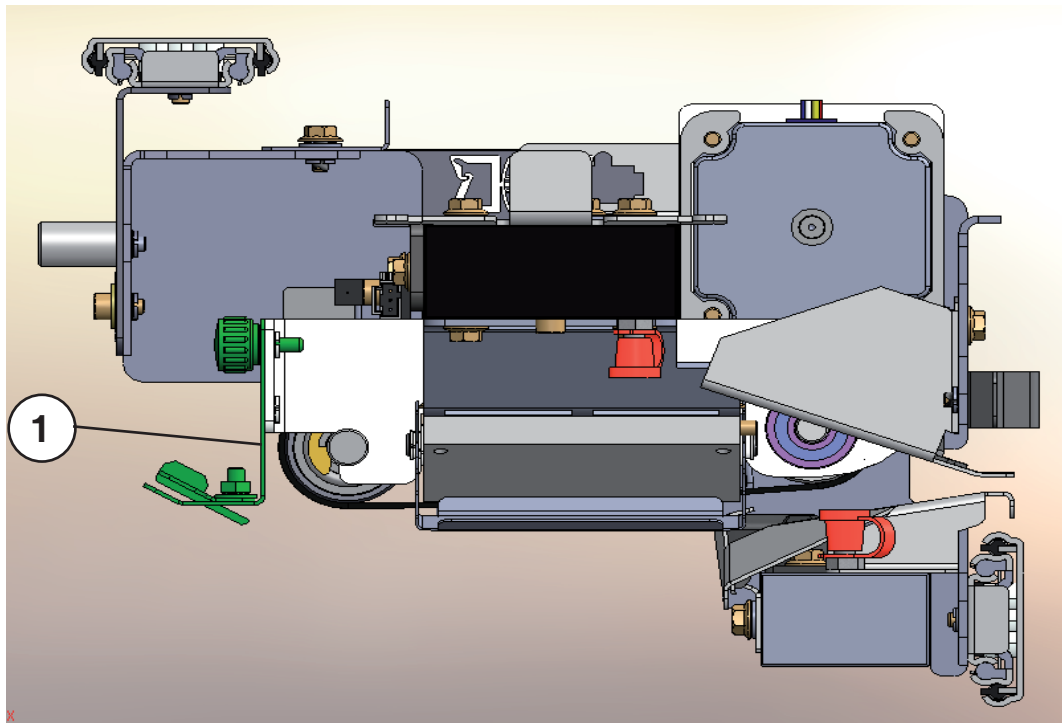
Paper should ideally remain flat.
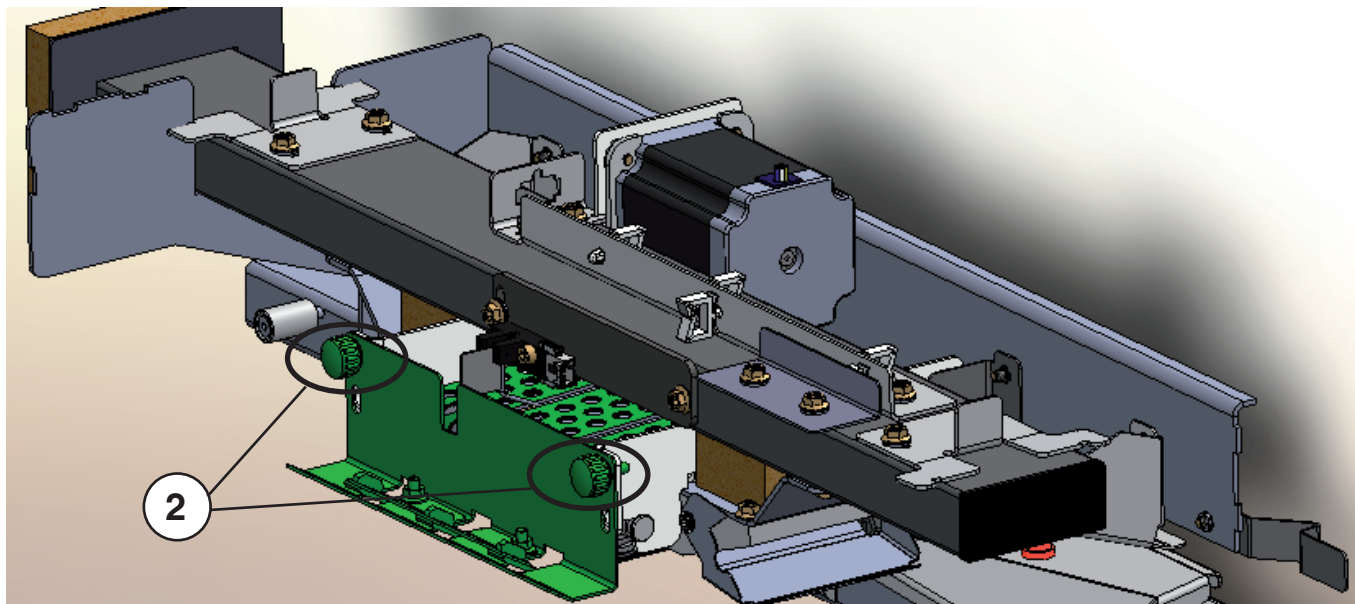
5.9 Jam clearance

5.9.1 For Input Conveyor :

To open baffles, pull the handle **(1, 2, 3 or 4)** and open the baffle.
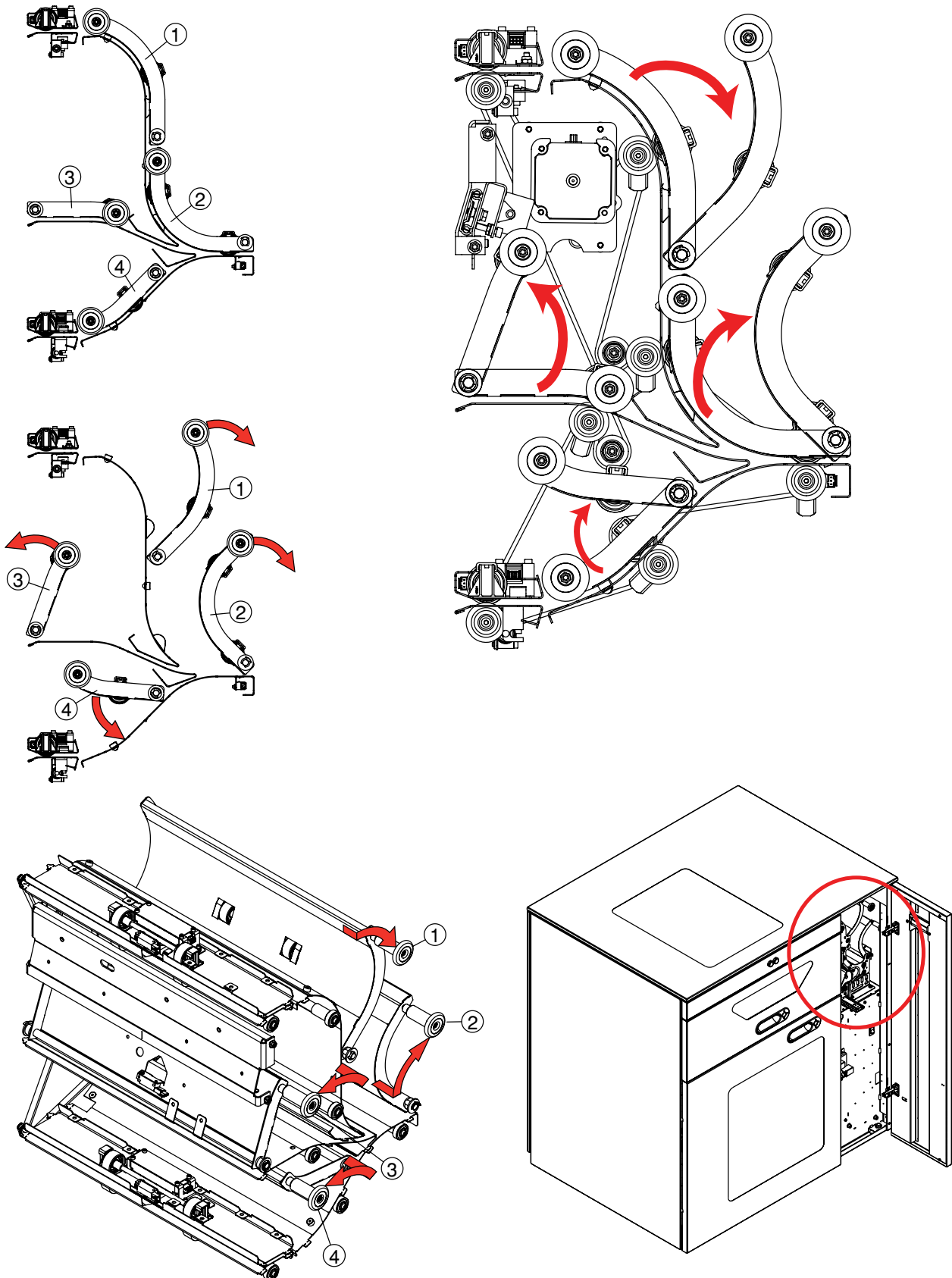
5.9.2 For By-Pass Conveyor :

Note: Only for PSF online configuration
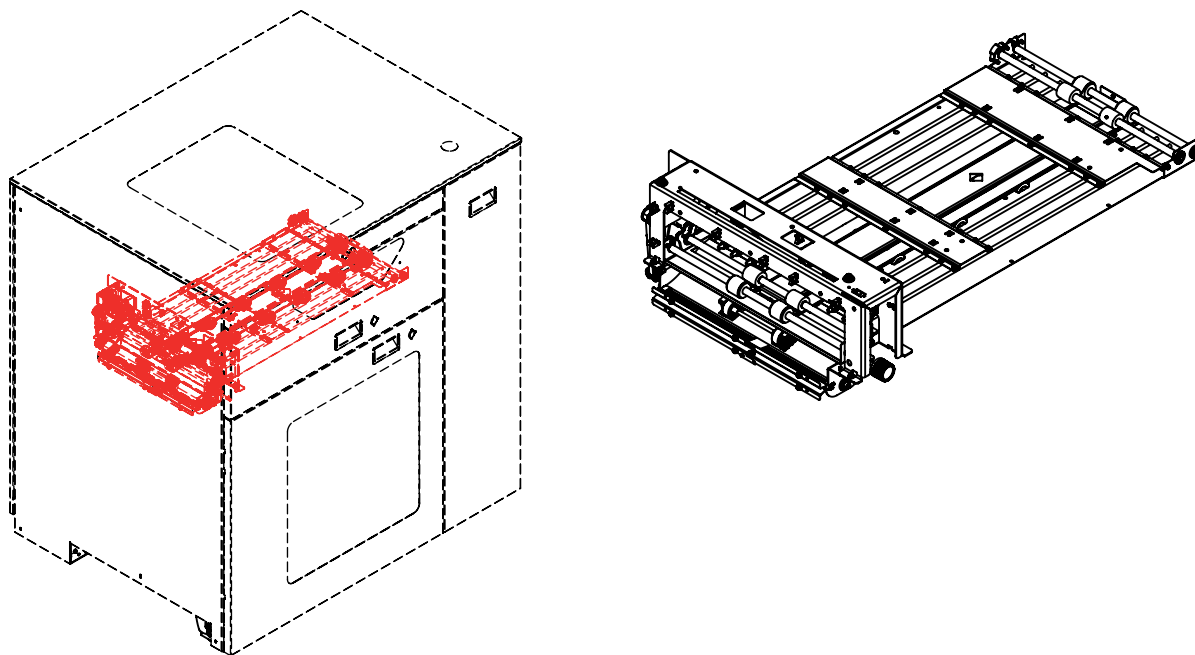
Open the Drawer and use to knurled knob (**5**) to dejam the By-Pass Conveyor.

Open also the conveyor door (**6**) to turn easily the knurled knob.

POWERSQUARE SHEET **FEEDER**
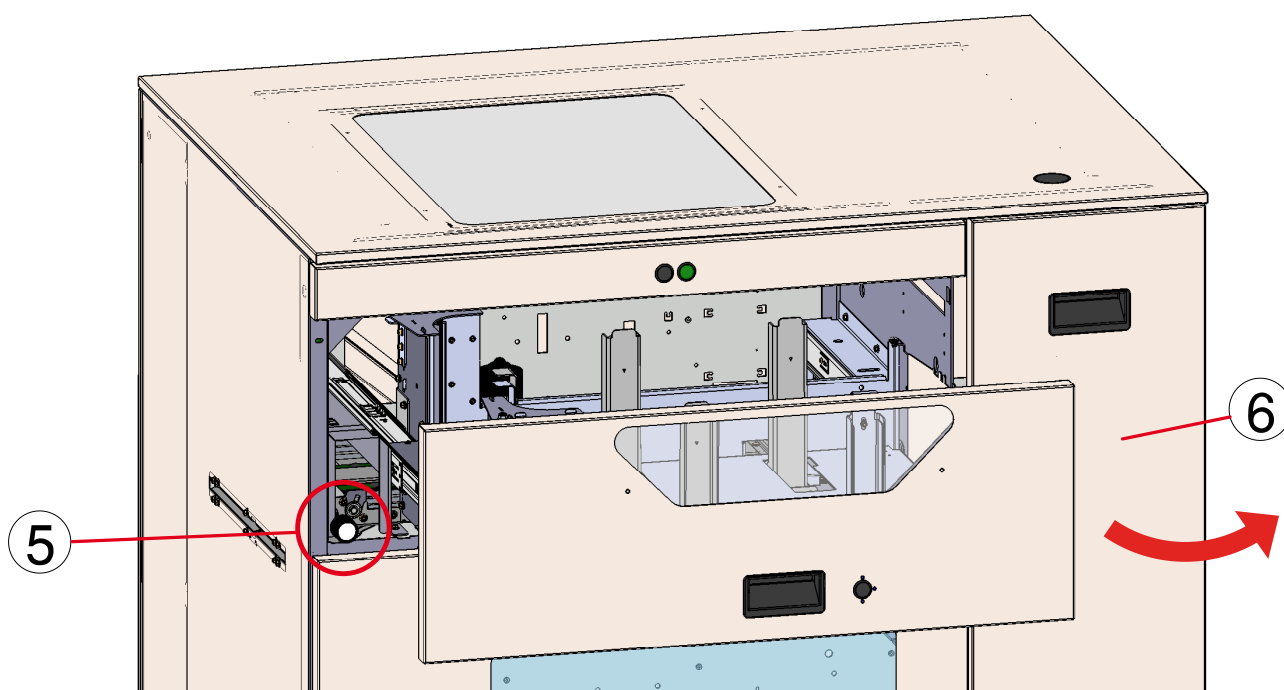
6. USE OF IFB (INTERFACE FEEDER BOOKLET MAKER (OPTIONAL))

When a PSF is equipped with an IFB (optional):

Adjust the magnetic reject tray stop (A) position depending on paper format.

The magnetic reject tray stop (A) should be removed in order to proceed sheets longer than **600** mm (**23**.**6** inch).

Keep the magnetic stop in a safe place.

Format indicator

A
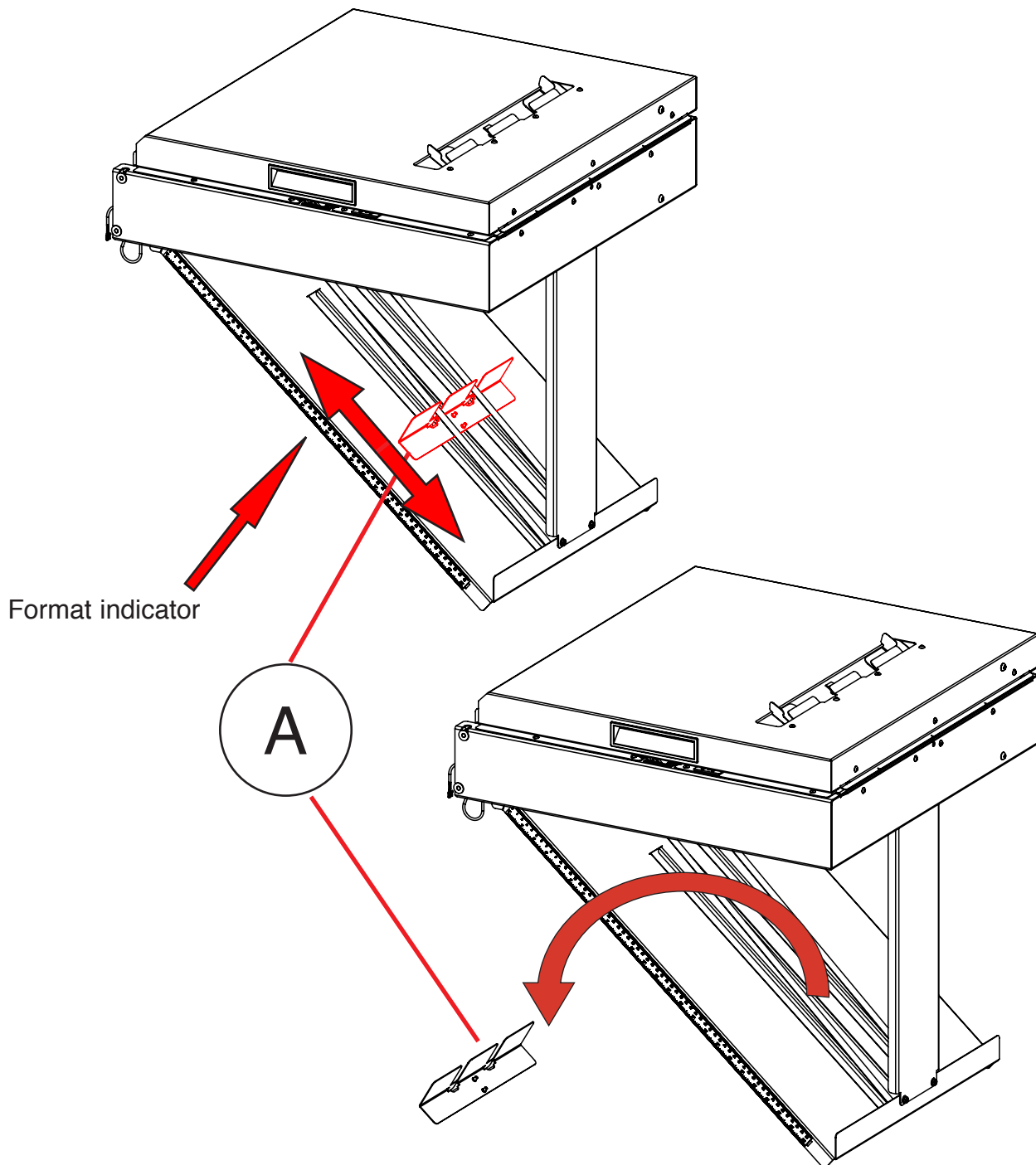
7. USE OF GRAPHICAL USER INTERFACE

The User Interface is a touch screen.

Select your choice by pressing on the screen with your finger.

The User Interface is divided into several tabs that vary according to the configuration.

Each tab has its own preference and/or adjustment buttons.

The control buttons are common to all tabs.
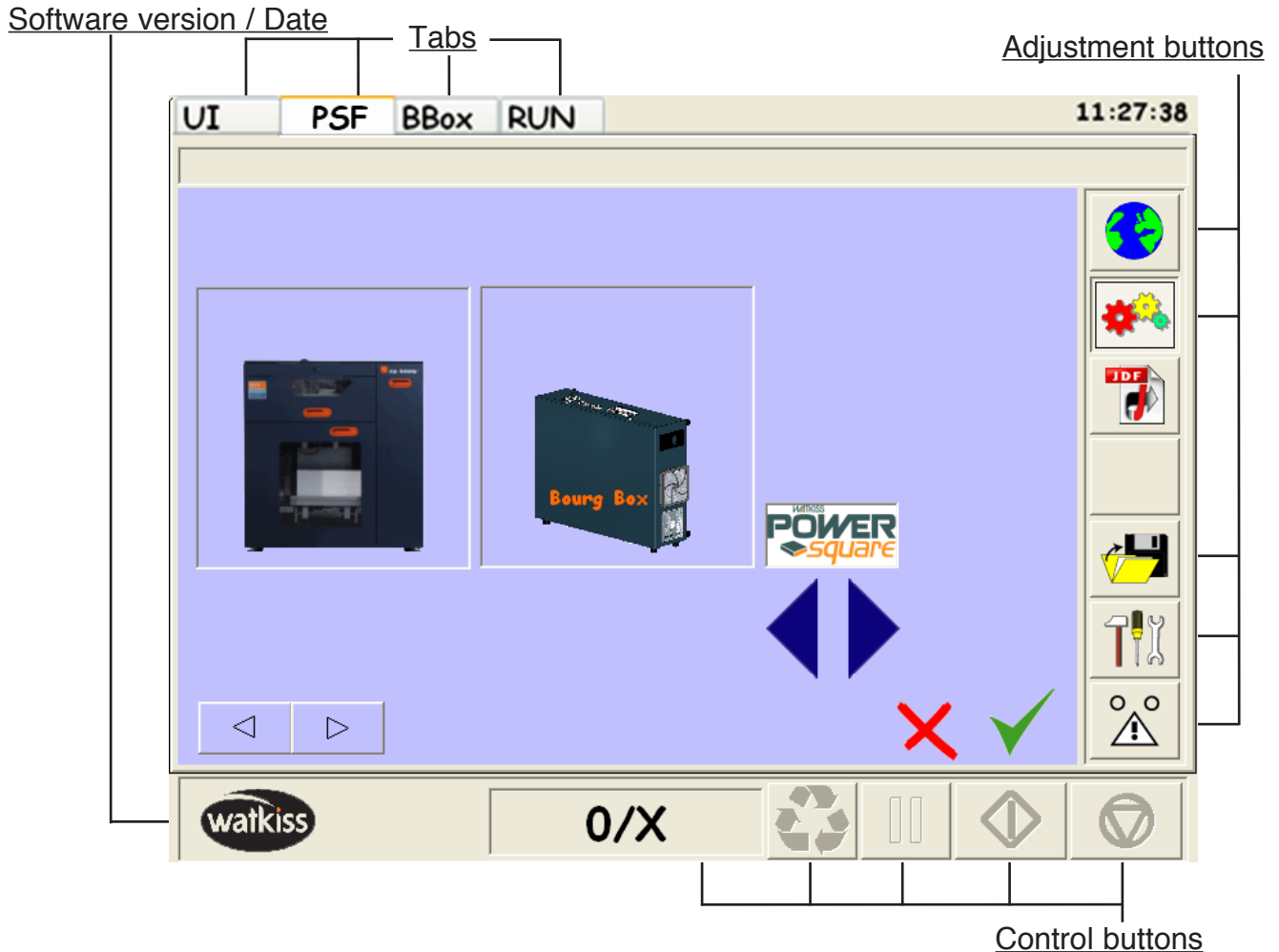
Care and cleaning

Do not place anything on the screen.

Do not let liquid get on or into the screen.

Use a regular glass cleaner to clean the screen (proceed as explained below).

To clean the screen:

1) Switch off the PSF.

   Do not use a spray cleaner on the screen, because the cleaner may drip inside.

2) Wet a soft cotton cloth with the cleaning solution and gently wipe the screen.

3) Do not use cleaning solutions containing solvents. Dry with a clean, soft cotton cloth.

CAUTION: *Danger of explosion if battery is wrongly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. See Section Adjustment/ Replacement of Service Manual for battery replacement.*

7.1 PSF Paper Specification

On this screen, enter the specifications for the paper loaded into the Drawer, the High Pile station and/or the By-Pass (only for online configuration).
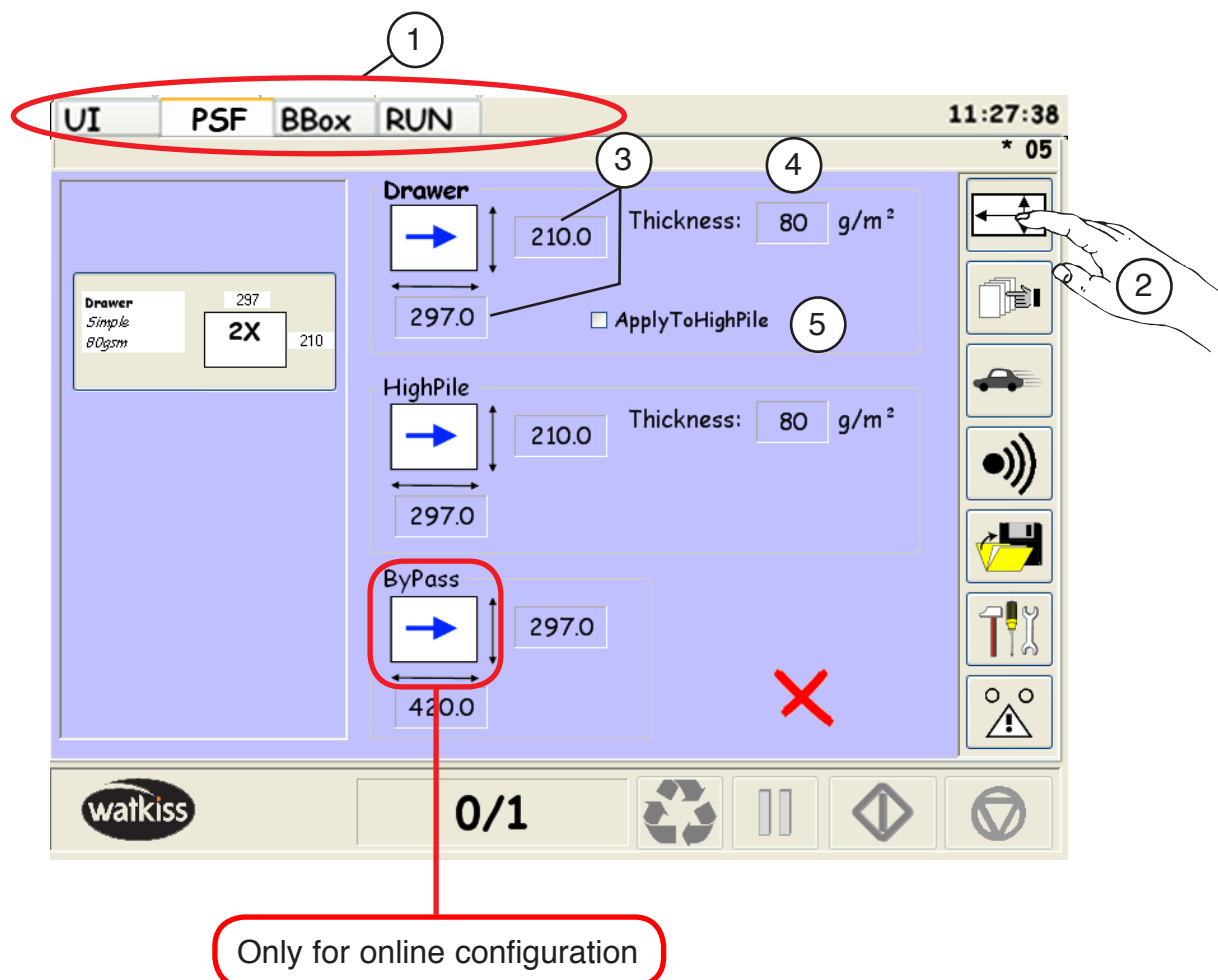
1) Select the PSF Tab.

2) Select the *PSF Paper Specifications* Menu.

3) Select the paper format for the intrack and crosstrack dimensions.
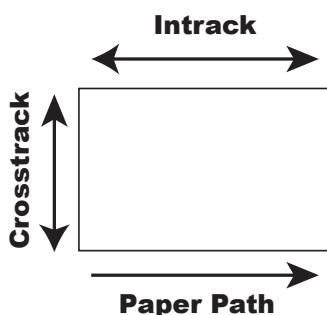
4) Select the paper weight (in gsm).

5) Select *"Apply to High Pile"* to copy the paper format of the Drawer to the High Pile station.

7.2 PSF Edit Subset

This menu allows to setup the sequence of feeding.
In the following example, there are 2 subsets in the current job.

A subset is a sequence of feeding sheets from the Drawer or from the High Pile station.
In this case, the PSF will feed :
- First (subset 1) :   1 sheet (manual mode) from the Drawer station (Max 6 subsets).
- Second (subset 2) :   10 sheets (manual mode) from the High Pile station.
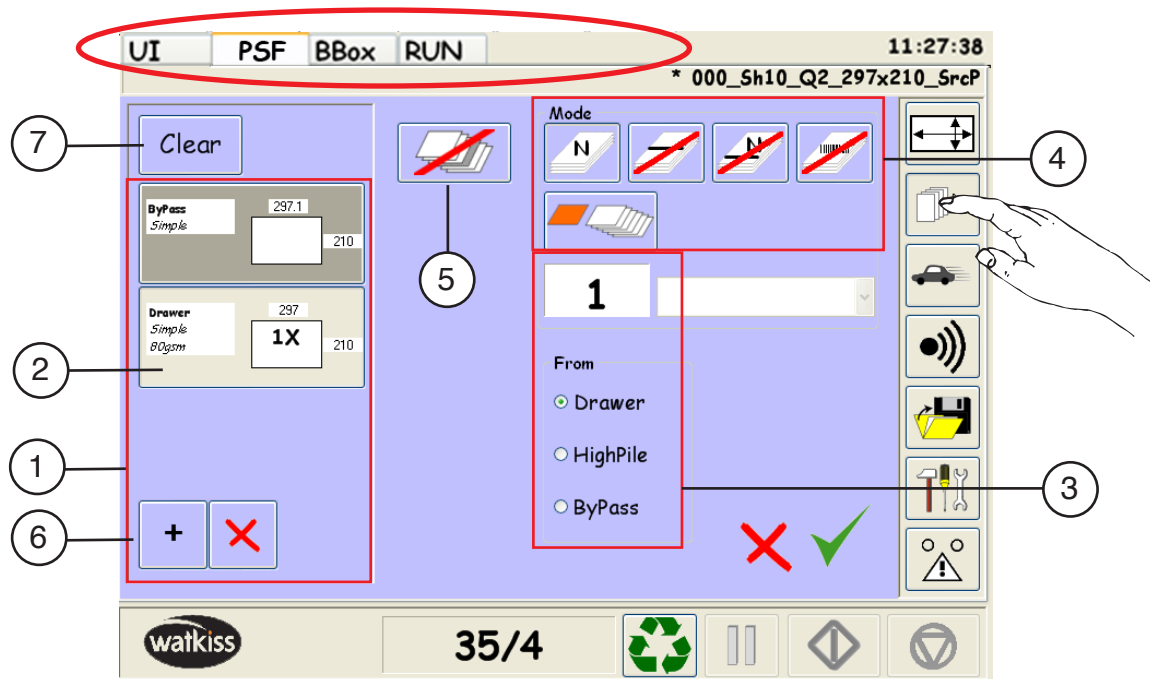
In the PSF tab

1) Job preview : This area gives a preview of the current job.

   In this example, there are **2** subsets in the current job.

2) Subset selection : Press the button to select the subset and edit it.

3) Paper source :Select the paper source from the Drawer, the High Pile station or the upstream device (By-Pass).

> Note: When **"By-Pass"** is selected, the paper is coming from the printer.
> The PSF feeding modes (manual, OMR, Barcode mode) are not available.
> The paper process and the **"end of set"** are controlled by the printer.
> It is also possible to insert a cover from the Drawer or from the High Pile
> (only for online configuration) see *"7.2.1 PSF Feeding mode", page 32*.

4) PSF feeding mode :
   See chapter *"7.2.1 PSF Feeding mode", page 32*

5) PSF Custom paper Menu :
   See chapter*"7.2.2 PSF Custom Paper Menu", page 37*

6) Add or delete subset.

7) Clear button :
   Erase all subsets.

POWERSQUARE SHEET **FEEDER**

7.2.1 PSF Feeding mode

The PSF has 5 modes of feeding : - "MANUAL" mode.
- "OMR" Mode.
- "OMR + MANUAL" Mode.
- "BARCODE" Mode.
- "COVER INSERTION" Mode
(only for online configuration).

7.2.1.1 "MANUAL" Mode

In the manual mode, the PSF will count the number of sheets to feed.
If activated, select the number of sheets to feed from the Drawer or from the High Pile station.

Only for online configuration

Select the number of sheets
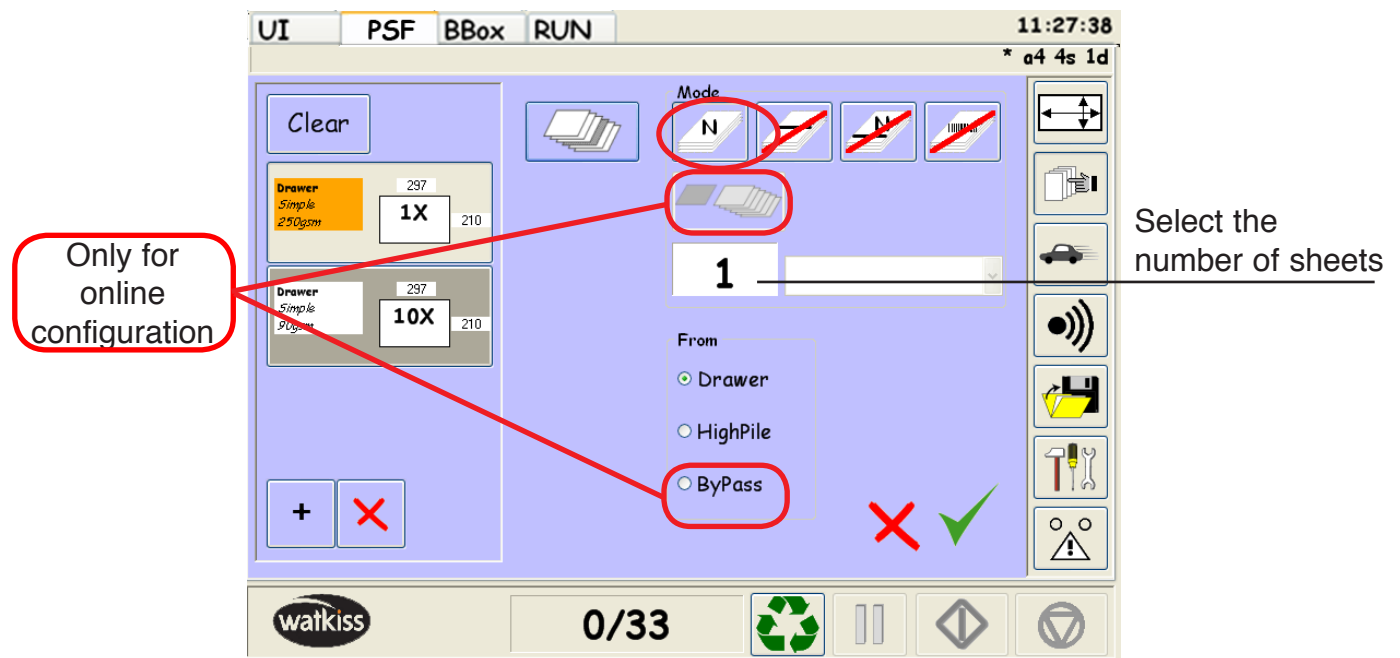
7.2.1.2 "OMR" Mode

OMR = Optical Mark Recognition.
A little mark printed on the paper gives the end of the subset feeding sequence.

The PSF has 2 OMR modes : - LE Last (Lead Edge Last) : The OMR mark is on the lead edge of the last sheet.
- C Last (Center Last) : The OMR mark is centered on the last sheet.
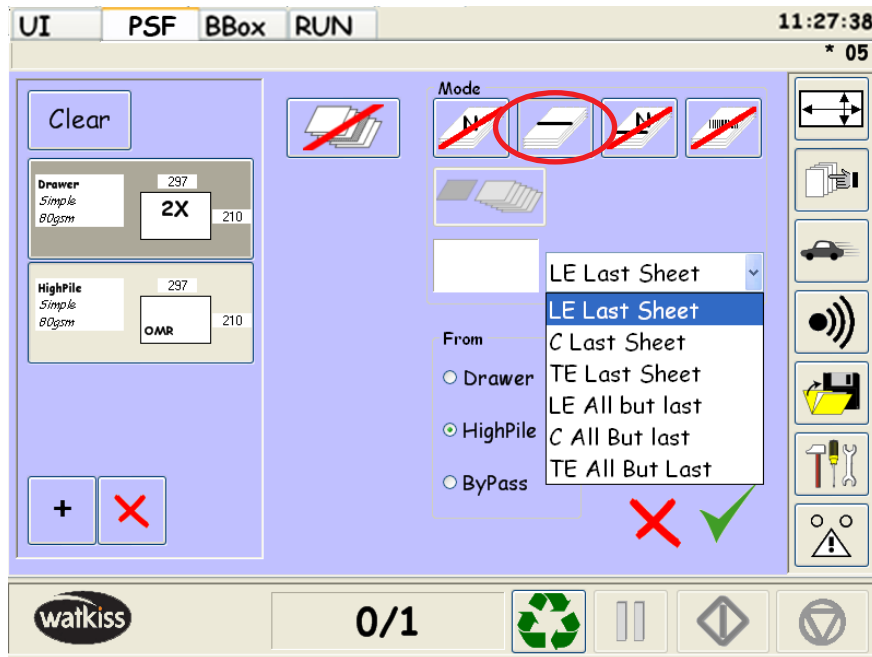
Note: There is also the modes **"LE All but last" and "C All but last"**. In this case, there is an OMR mark on all sheets except on the last one. The lack of mark gives the end of the subset feeding sequence.

See OMR specifications in "OMR" chapter.

POWERSQUARE SHEET FEEDER

7.2.1.3 "OMR + MANUAL" Mode

In this mode, the PSF count the number of sheets to feed and check if the OMR mark is on the last sheet fed.

PSF Paper specification menu

POWERSQUARE SHEET **FEEDER**
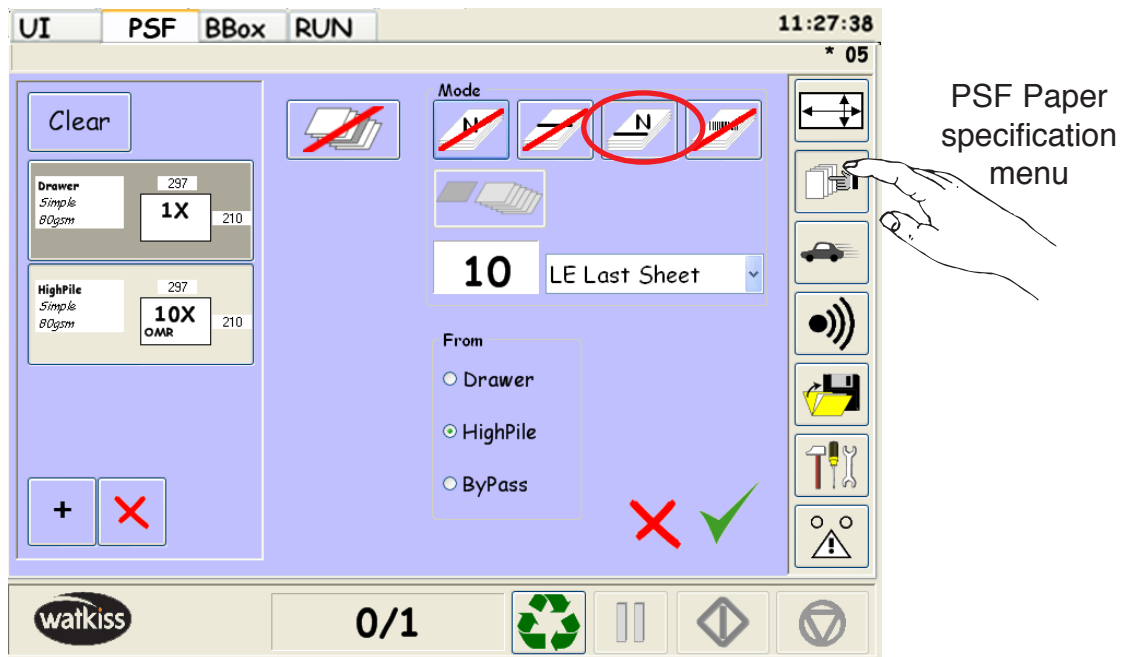
7.2.1.4 "BARCODE" Mode

With the barcode mode, the sequence of feeding is given by the barcode.

See BARCODE specifications in "BARCODE" chapter.

Initial issue: 05/11
Latest revision: 03/13

POWERSQUARE SHEET **FEEDER**
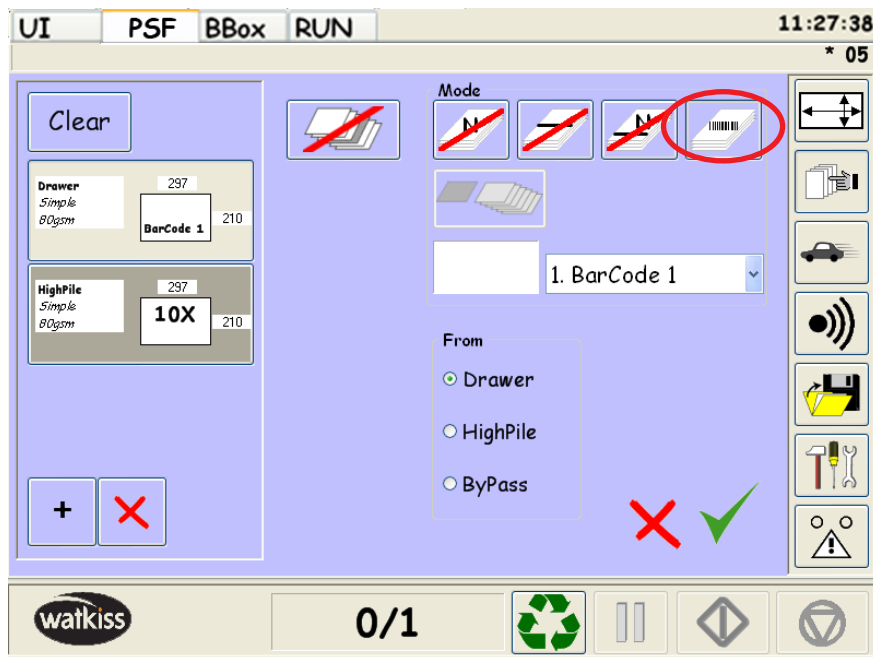
7.2.1.5 "COVER INSERTION" Mode.

Note: Only for online configuration

When **"By-Pass"** is selected, the paper is coming from the printer. The PSF feeding modes (manual, OMR, Barcode mode) are not available.

The paper process and the **"end of set"** are controlled by the printer.

It is also possible to insert a cover from the Drawer or from the High Pile AT THE END OF THE SET.

For example : - Subset **1** : By-pass mode.
  - Subset **2** : Cover Insertion (**1** sheet) from the Drawer.

Cover insertion mode
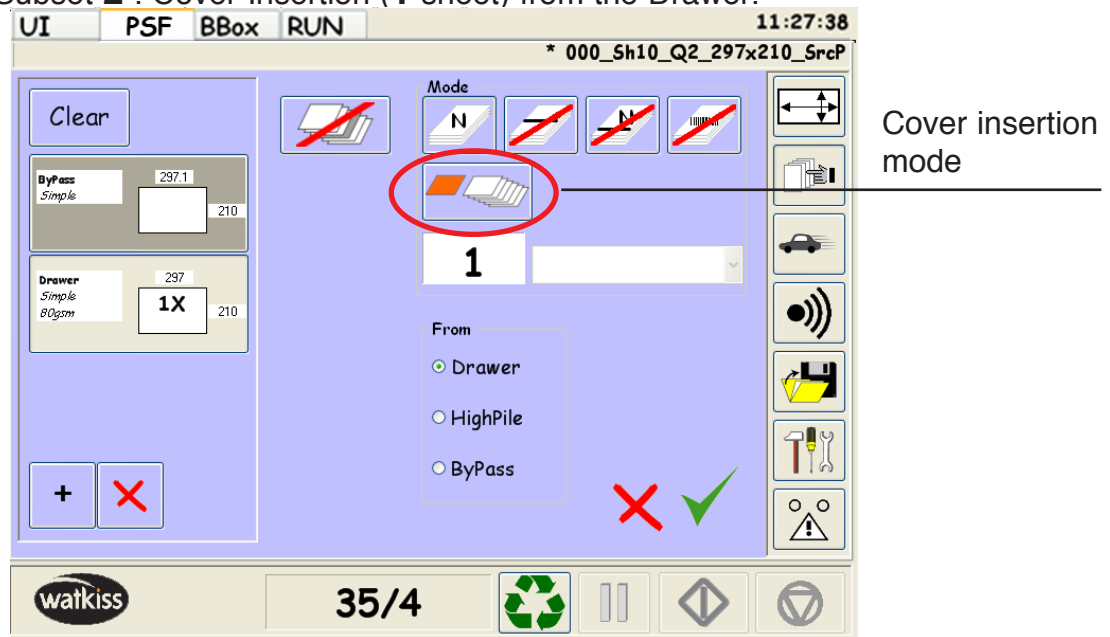
There are **2** modes to insert a cover at the end of the set. Use the following **"toggle"** button to select the mode :

 Cover insertion with an interset extra gap:
The cover will be sent to the finisher after the last sheet coming from the printer (with no overlap).

 Cover insertion with no interset extra gap:
The cover will be inserted with an overlap on the last sheet coming from the printer. This application does NOT reduce the productivity because NO interset extra gap is needed.

Note: If the insertion comes from the High Pile station, the insertion will not be at the last sheet, but at the sheet before the last sheet (because the inserted sheet comes below the sheets coming from the by-pass).

*Note: With the software package WFM**004**, only the insertion of **1** sheet at the end of the set and with an interset extra gap is available.*

7.2.2 PSF Custom Paper Menu

In the "PSF Paper specification" menu, on each station, only 1 paper weight can be selected.

Only 1 paper weight for each station
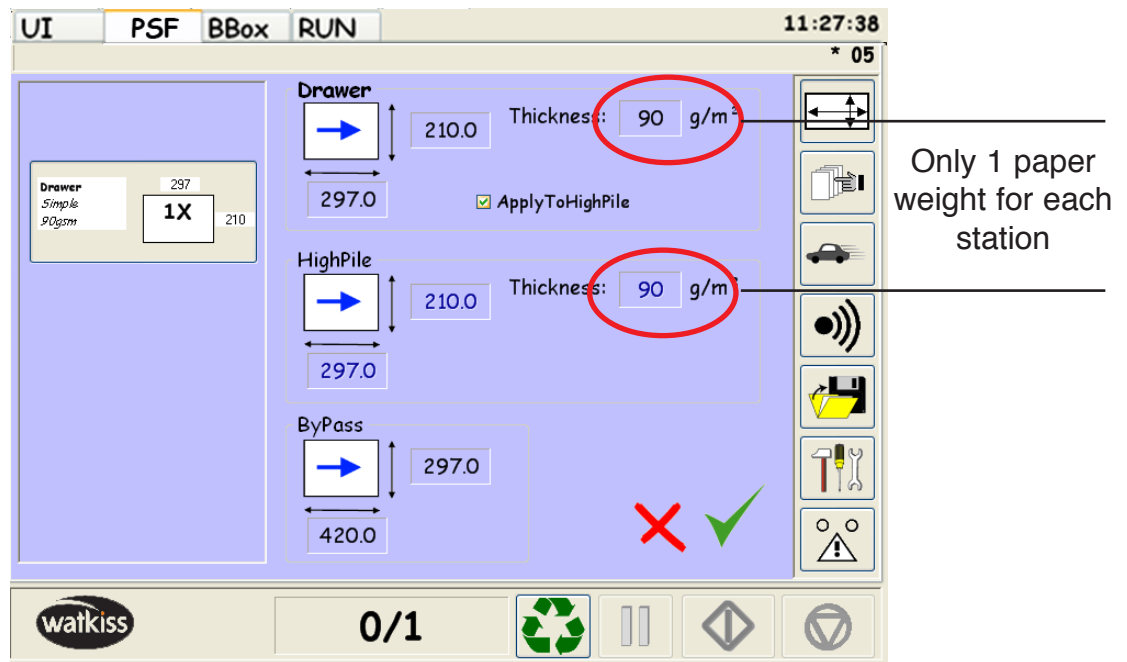
With the PSF, it is possible to feed pre-collated sets with different paper weight in the same pile.

For example :
- First (subset 1) :   10 sheets (manual mode) from the <u>Drawer</u> station (<u>90</u> gsm).
- Second (subset 2) :   1 cover (manual mode) from the <u>Drawer</u> station (<u>250</u> gsm).

The "PSF Custom Paper" menu allows to set different paper weights in the same station.

1) For the example above, program 2 subsets from the Drawer :
- subset 1 = 10 sheets.
- subset 2 = 1 cover.
Both subset are set up with 90 gsm paper weight. The "Custom paper" menu will be used to select a different paper weight for the 2nd subset (cover – 250 gsm).

2) Select the subset N°2 and press on the "Custom Paper" menu.

Custom paper menu

Subset N°2

3) Press on the button [icon] to enable the "Custom paper" mode.

Enable the « Custom paper » mode

POWERSQUARE SHEET FEEDER
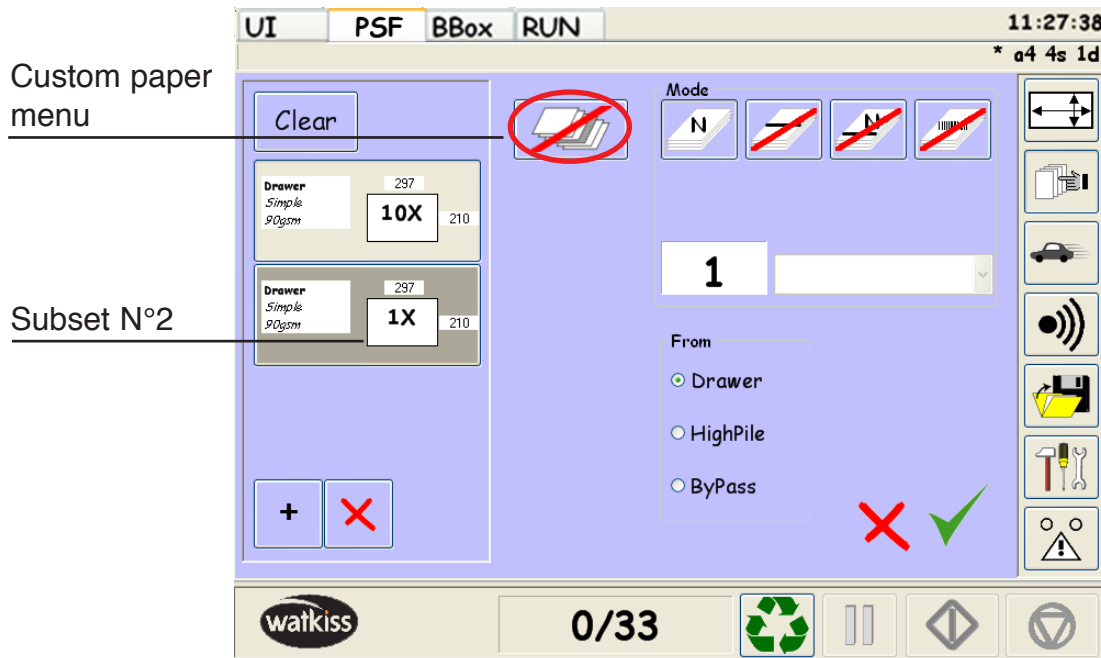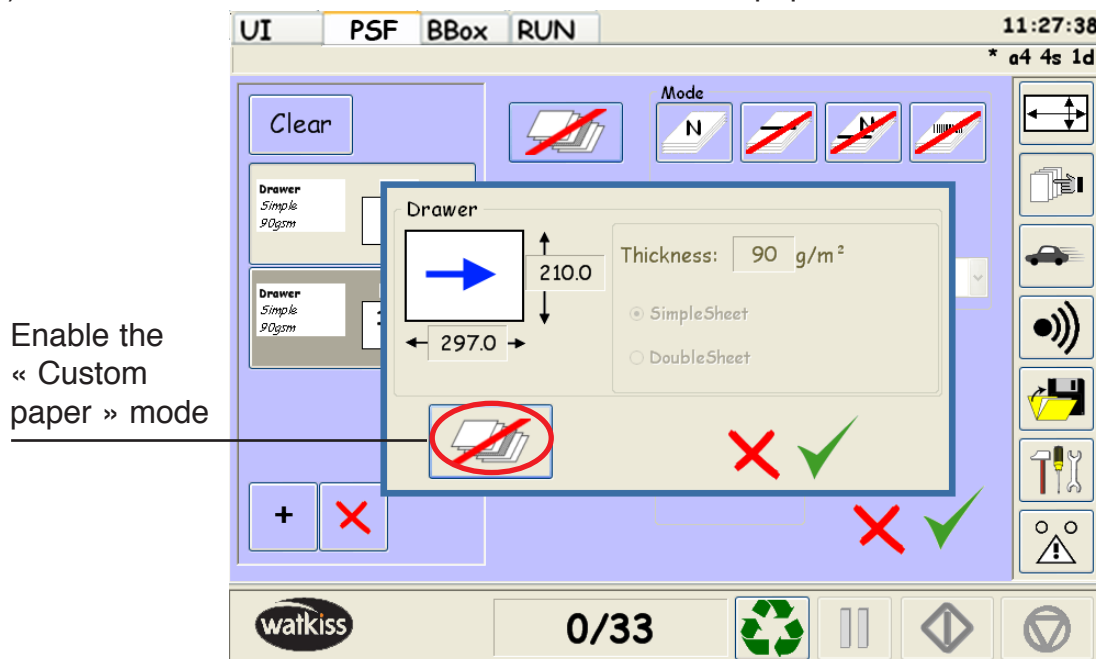
4) In the "Custom Paper" menu, 2 settings are available:
- The paper weight.
- The simple and double sheet mode. The double sheet mode allows to feed folded sheets, carbon paper, sheets stitch together,…

In this example, the paper weight has been changed to 250 gsm.
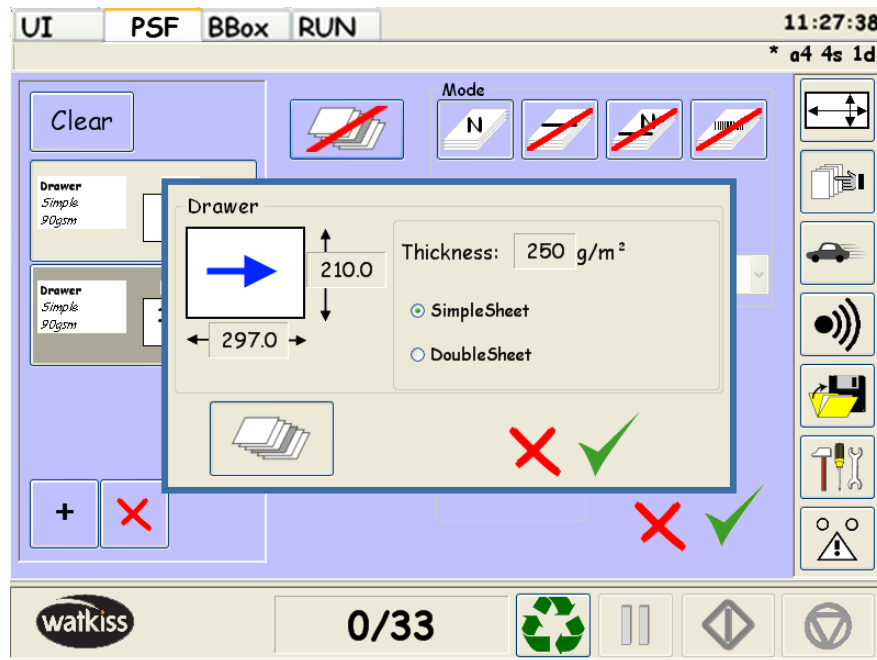
Note: Press on the button to disable the **"Custom Paper"** mode.

5) Validate the setting by pressing .
The subset is in the "orange" color to prevent the operator that this subset uses custom paper.

Custom subset

POWERSQUARE SHEET FEEDER
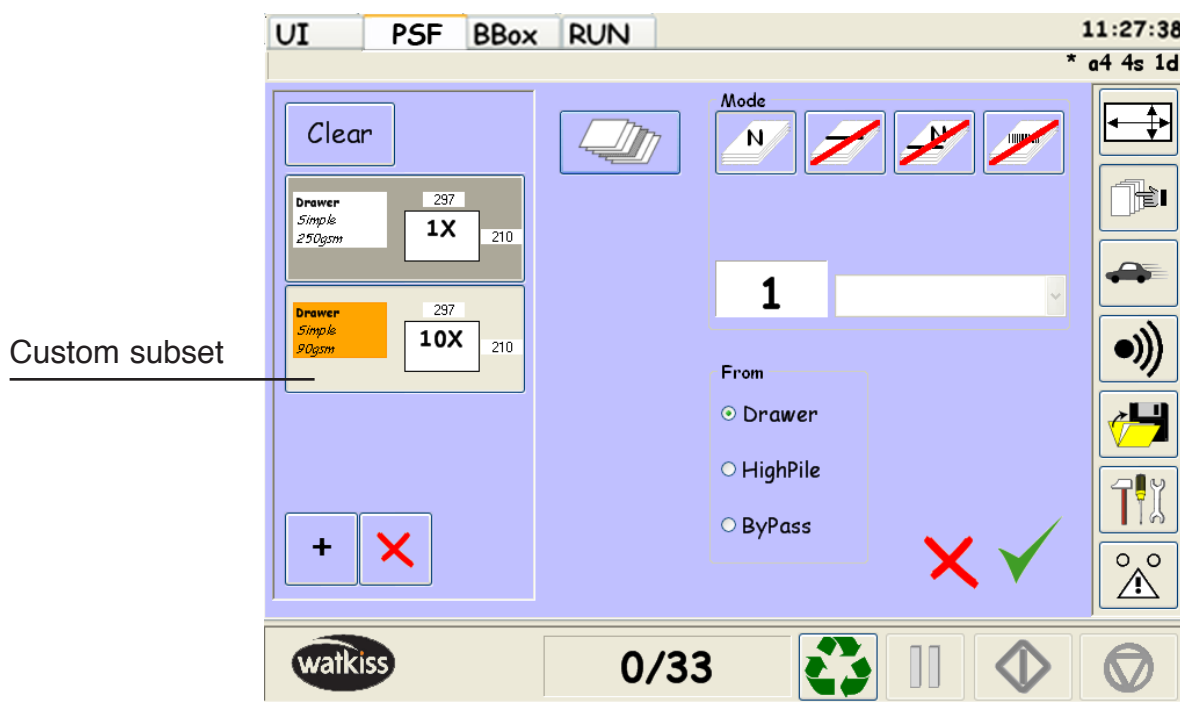
7.3 PSF Speed Menu
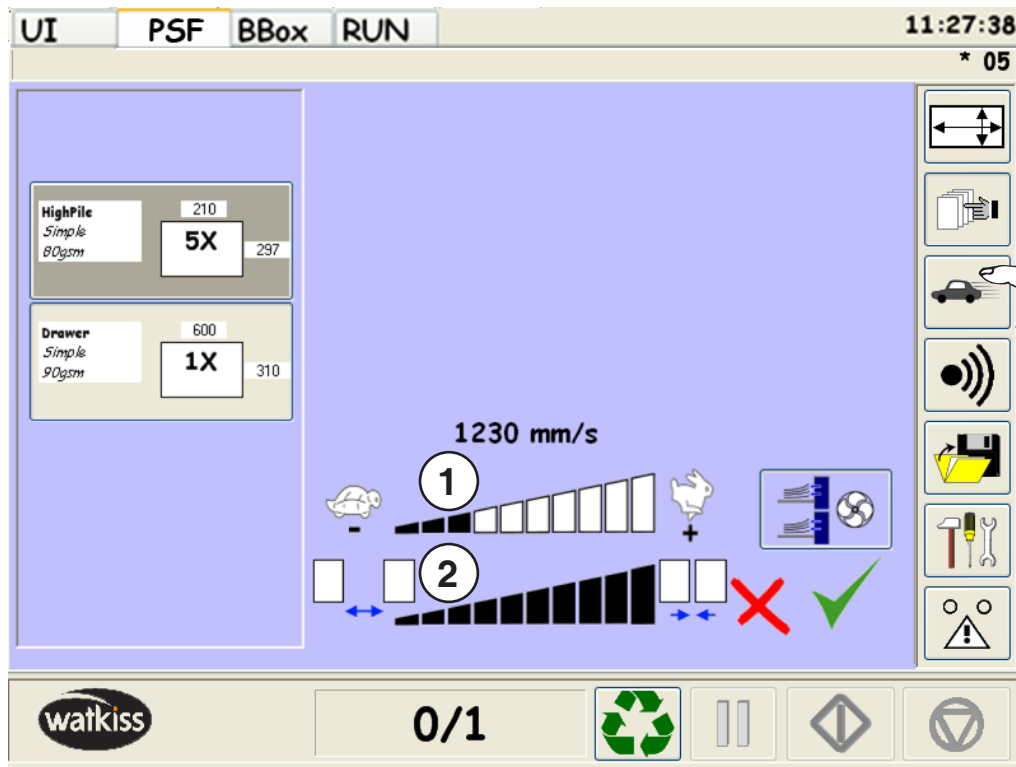
1) Paper speed:

Select the paper speed from 1000 to 2000 mm/s

2) Productivity:

Select the PSF productivity from 1 to 9 (low = 1, high = 9).

3) Turbo mode:

Enable or disable the Turbo mode.
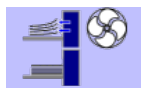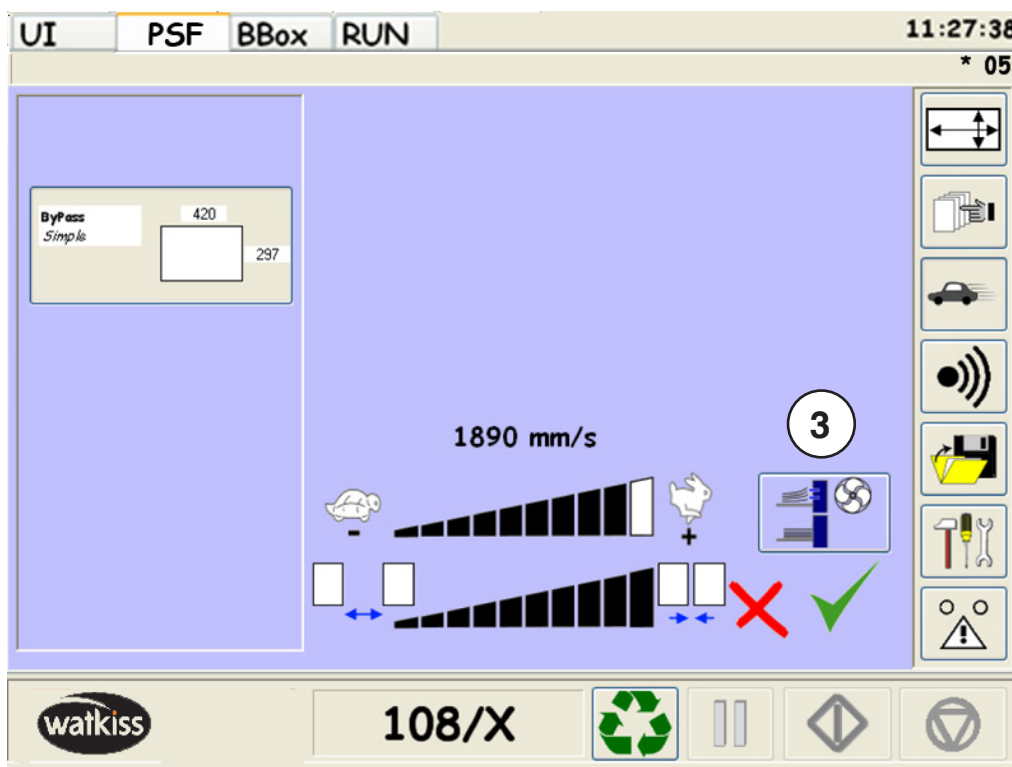
- If the turbo mode is disabled (turbo mode = 0), the PSF blows air on 1 station at a time.
So when the feeding changes from the High Pile to the Drawer, the PSF will stop to blow air in the High Pile and will after start to blow air in the Drawer. This change takes time and decrease the productivity.
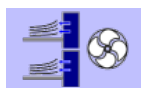
- If turbo mode is enabled (turbo mode = 1), the PSF blows air in both stations (High Pile and Drawer) at the same time.
So, there is no loss of time when the feeding changes to feed from the High Pile to the Drawer (or reverse).

Note: The turbo mode is useful ONLY when the job is feeding sheets from both station (High Pile and Drawer).
If the job is feeding only from one station, the turbo mode is not needed.

7.4 PSF Error mode Menu
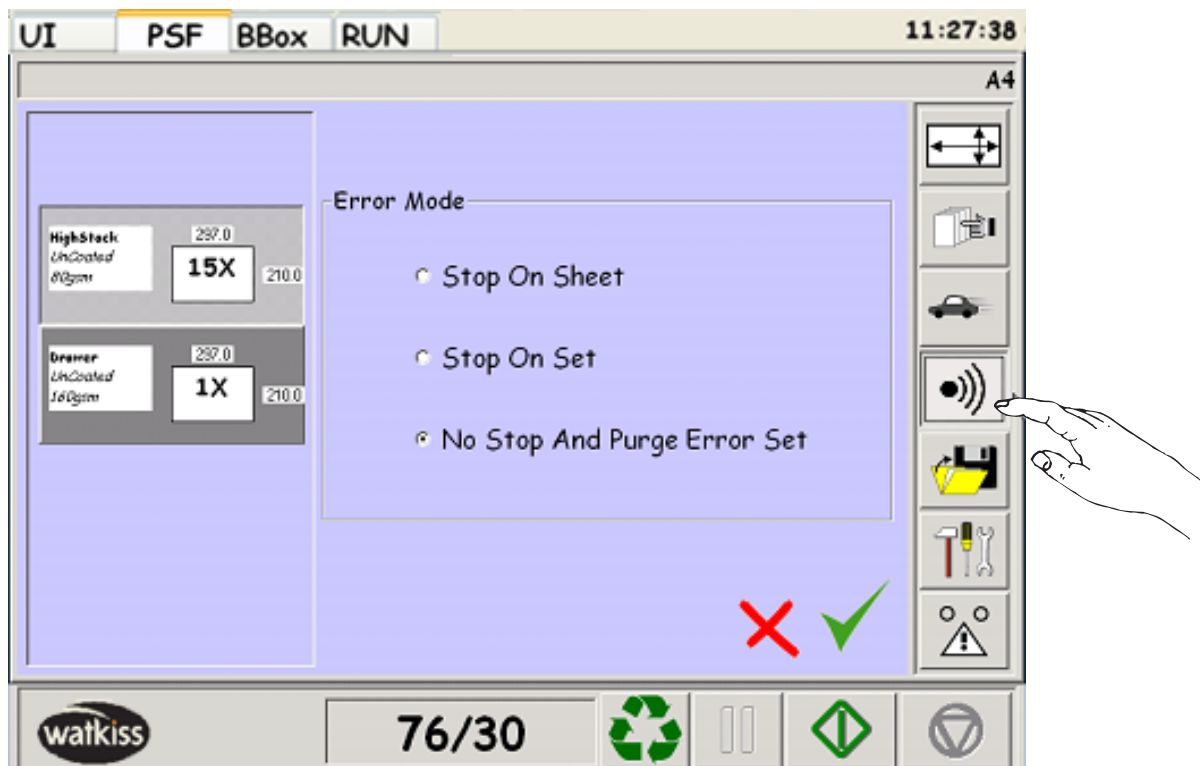
Select PSF behavior in case of errors (double feed) :

   - **Stop on sheet** : Stop at the first error. If error, the double sheets are stopped in the PSF conveyor, and the previous feeded sheets stay in the Downstream Device.
   The operator has to purge the paper.

   - **Stop on set** : Stop at end of set. If error, the double sheets and the other sheets of the booklet are feeded into the Downstream Device. The Downstream Device will purge automatically the entire faulted set and will stop after.

   - **No stop and purge error set** : No stop in case of error(s). If error, the faulted set will be purged (without folding and stitching) without stopping the machines.

7.5 PSF File menu parameter

The graphical interface allows an easy and performing jobs management.

Press the button *"FILE MENU"* to have access to the file parameters.
Five adjustments are available:
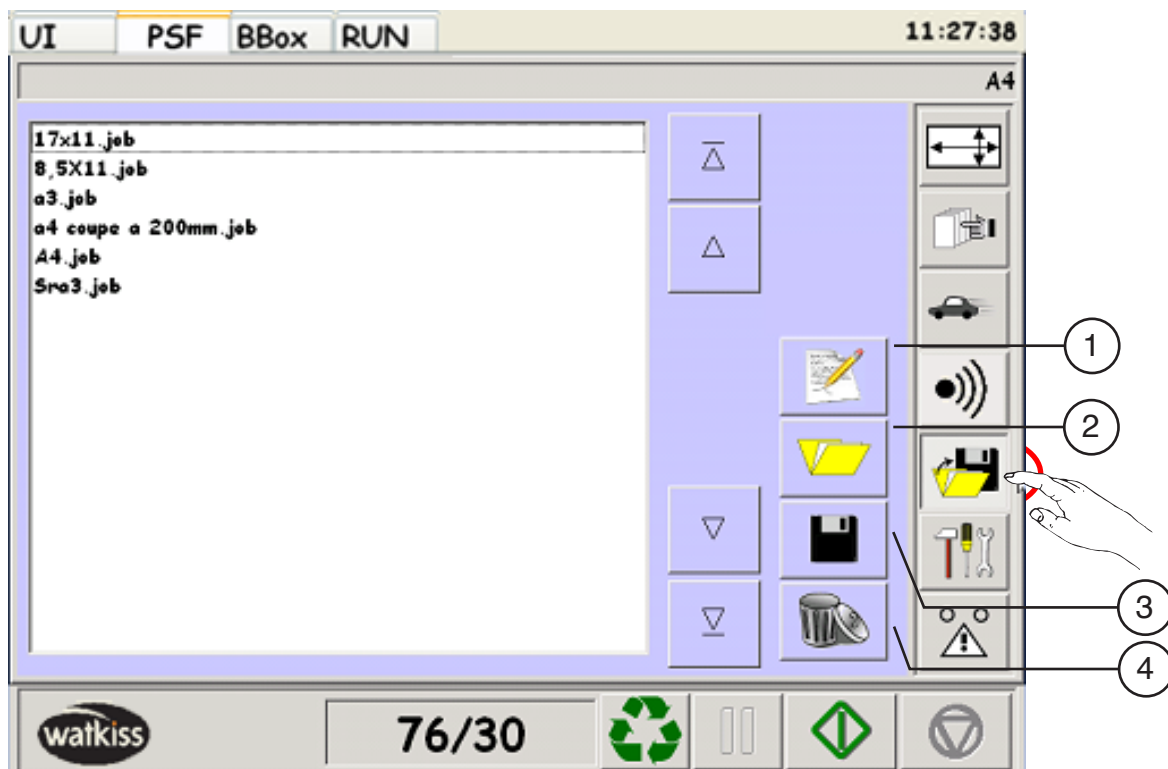
1 - **Make a comment** on the saved jobs.

2 - **Open** a job saved by the operator.

3 - **Save** a new program with his name and characteristics.

4 - **Erase** an existing program no longer used.

Make a comment

This menu allows to make a personal comment on a saved job.
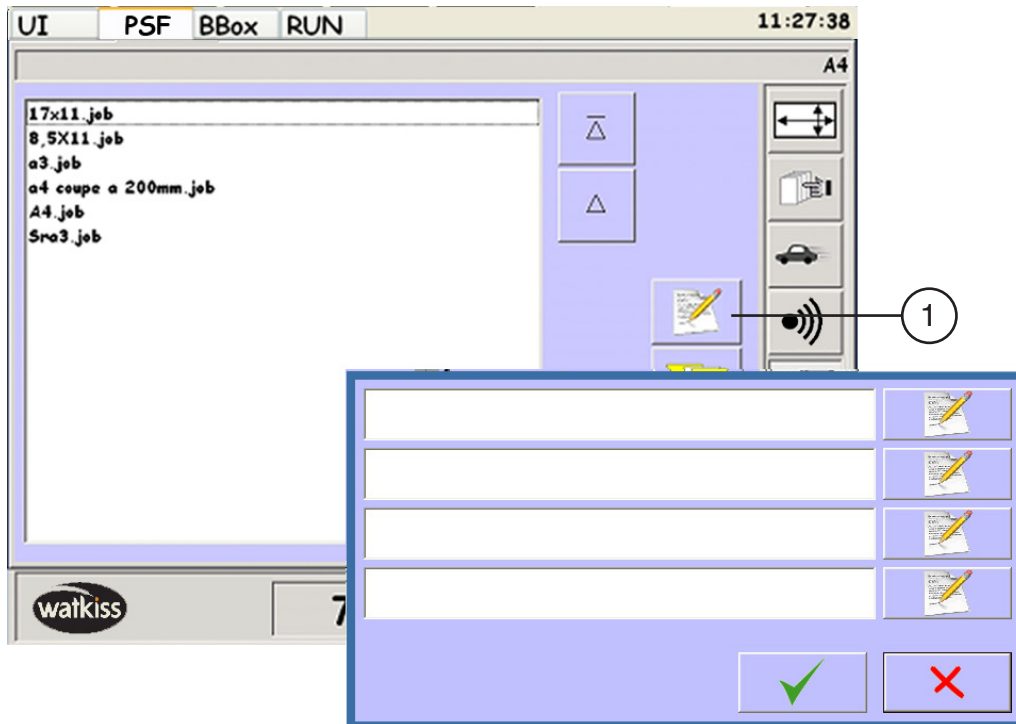
Select a job and press button (**1**) to access to the dialogue box.

4 lines are available to write the comments through the alphanumeric keyboard.

Press enter to display the comment on the line.

Validate ✓ .

Opening an existing job

This menu allows to open a job saved by the operator.
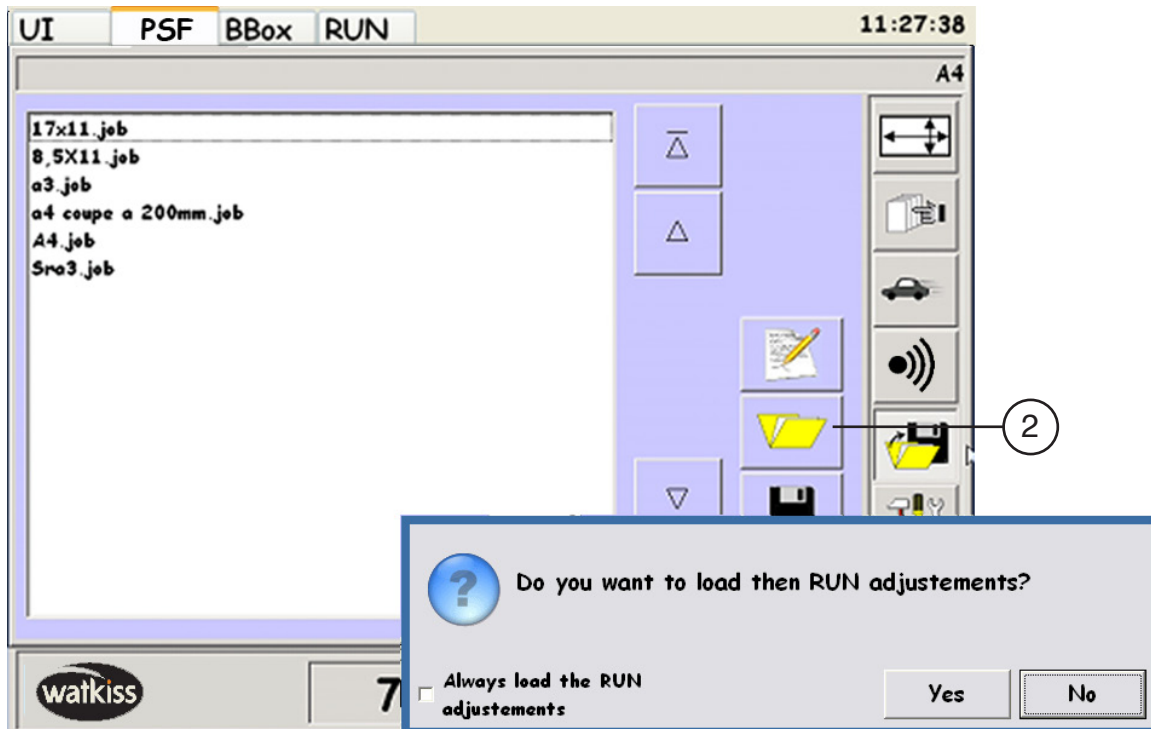
Select a job in the left column and press button **(2)**.

Press YES to open the selected job or NO to return to the previous screen and select another job.

This job can be the starting point to define a new job.
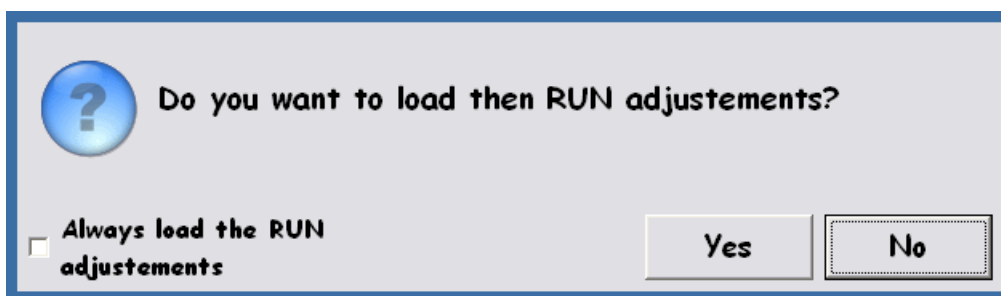
If set, this option can be changed in the preferences menu.

Save a job

When a job has been defined by the operator, it can be saved as follow.

Press button **(3)**.

Enter a name for the job on the alphanumeric keyboard and confirm it with the *"ENTER"* key.

The new job appears in the left column.

If the name given already exists and that you press *"enter"*, a message will appear to ask you to confirm the replacement of an existing file by the new one.

Press YES to replace the existing job by the new one or NO to return to the previous screen and rename the new job.

> Note: Approximately **500** jobs can be stored.
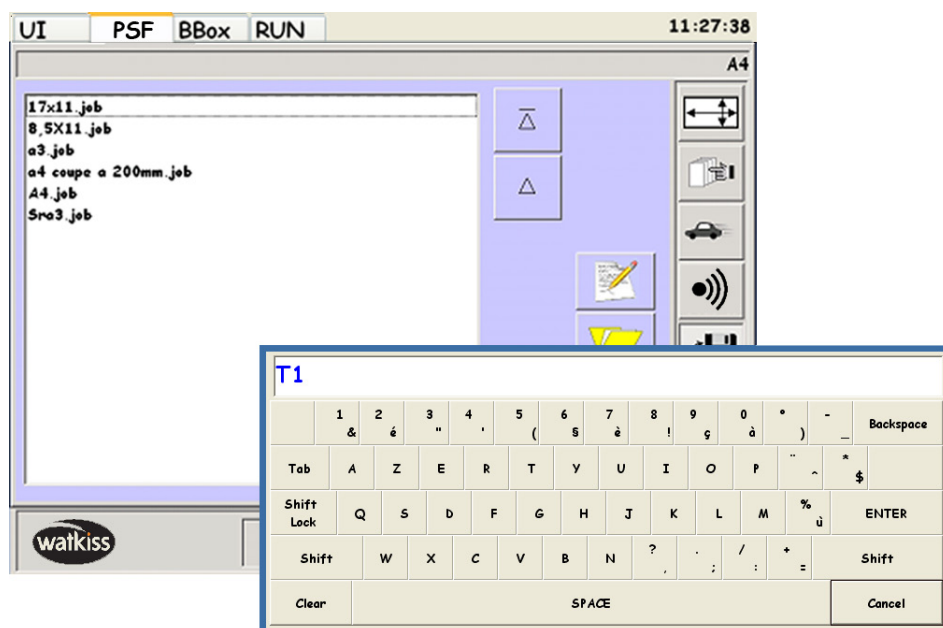
Erasing a job

This menu allows to erase an existing job.
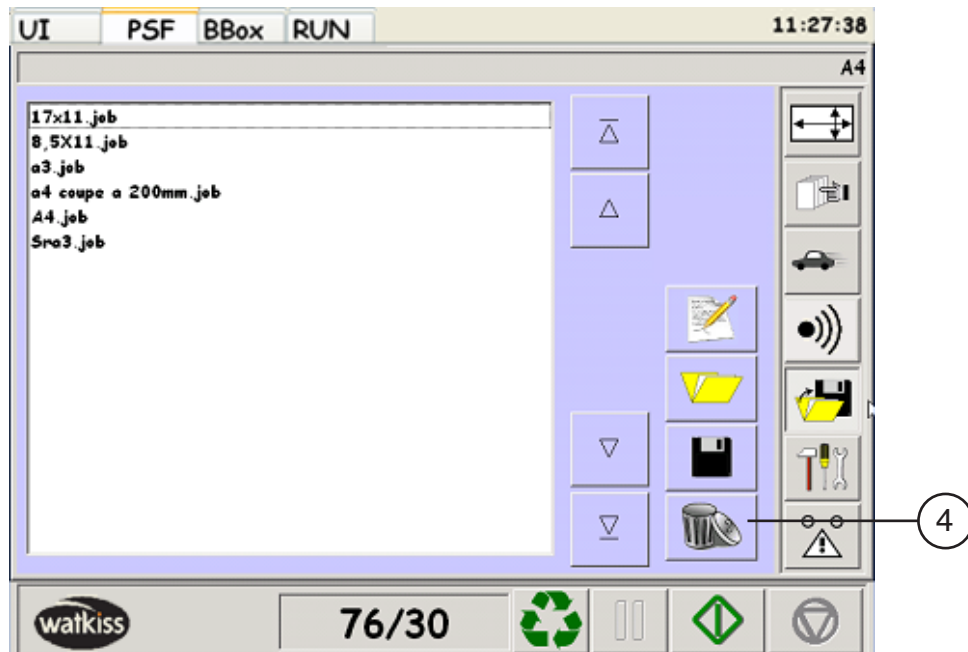
ATTENTION: *Once deleted, there is no way to recover the deleted program.*

Select the job to be erased in the left column.

Press button **(4)**.

The following screen appears.

Press YES to erase the selected job or NO to cancel and return to the previous screen.
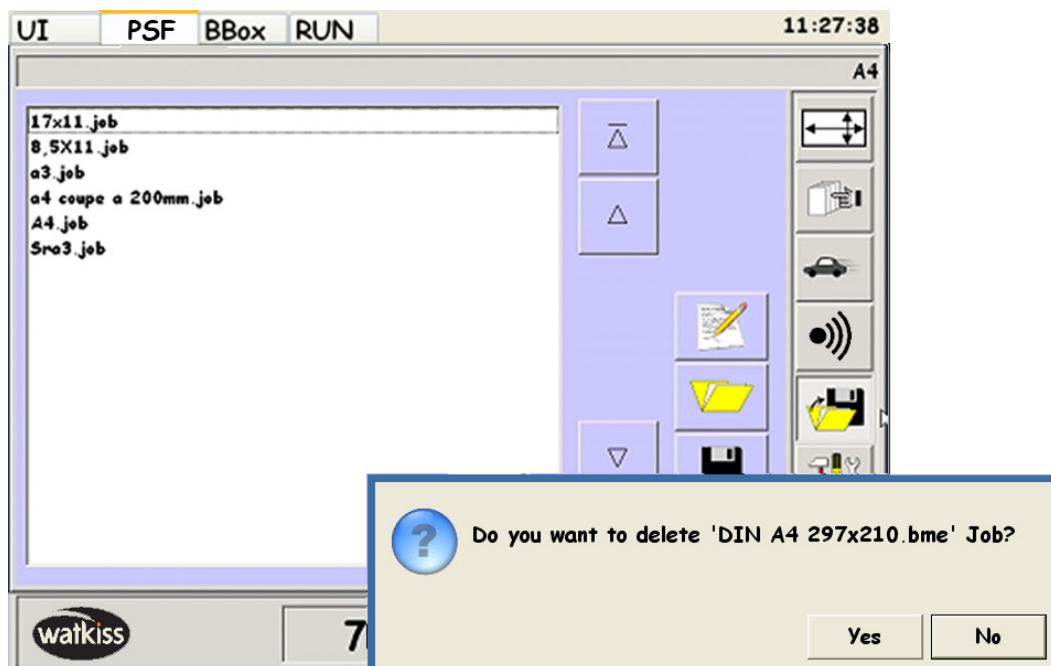
7.6 PSF Preference Menu

With the "PREFERENCES" menu, the PSF can be configured according to the operator's preference.

There are 5 operator's settings: - Blower level when loading High Pile (1).
- Barcode Definition (2).
- OMR Calibration (3).
- Barcode Test (4).
- ColorPress Cart Prelift (Optional) (5).

The "PREFERENCES" menu is available in the PSF tab by pressing the icon [icon] .

PSF Preferences menu
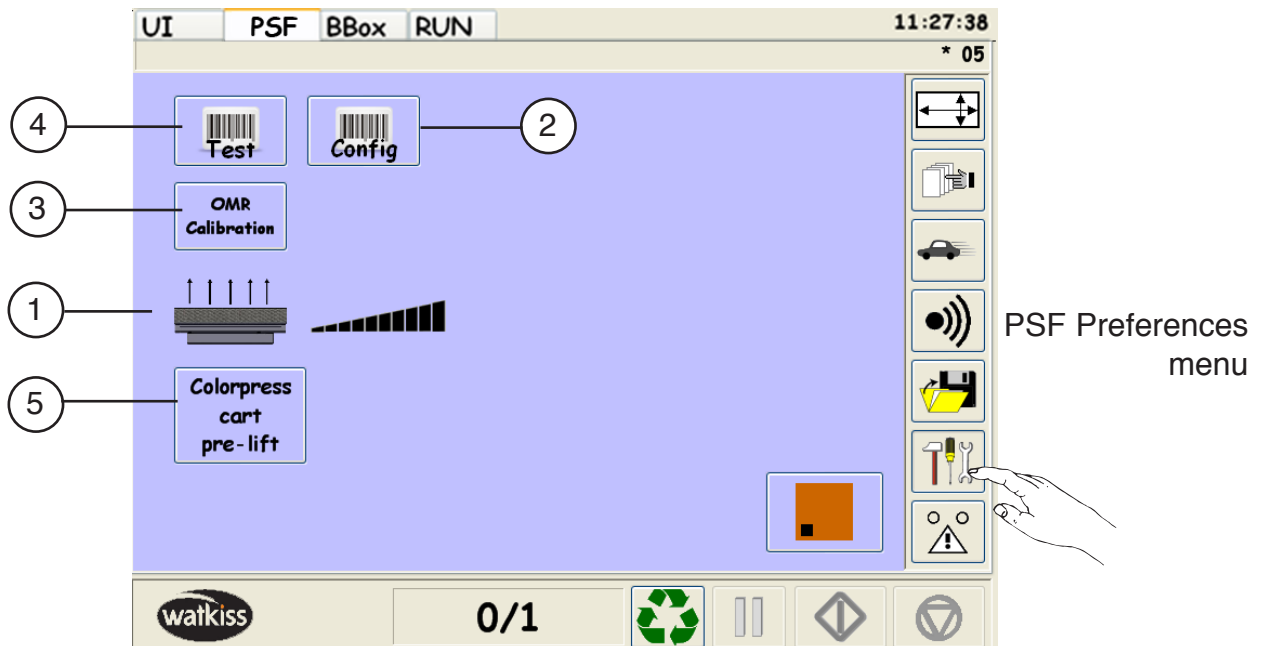
1) Blower level when loading High Pile.

When loading paper in the High Pile station, the operator open the High Pile door, push the cart into the PSF and presses on the 2 green buttons. At this time, the blower starts to blow through the air table. With the air table, the operator can easily move/rotate the paper pile.

By default, the blower air level is at the maximum.

However, the blower level can be adjusted and decrease according to the height of the paper pile.

If there is no air table on the cart, the blower air level must be adjusted to 0 .

2) Barcode Definition : See chapter *"8. Barcode", page 56*

3) OMR Calibration : See chapter *"9. OMR Specifications", page 77*

4) Barcode Reader Test.

The "barcode Test" menu allows to the operator to check the barcode reading of the scanners above the paper pile of the Drawer and the High Pile station.

A. Test via GUI:
- Put paper with barcode (face UP) in the Drawer and in the High Pile station.

- Validate the paper size setup in the PSF menu.

- Put on the "Barcode Test" button 🔲 . The Drawer and the High Pile trays will go up and the High Pile paper stop will be in position (according to the paper size).

- For each station, press on :

- <u>CONTINUOUS</u> : To start the Barcode reading and the scanning continuously. The code read is displayed on the GUI.
- <u>SINGLE</u> : To activate the barcode reading and the scanning during 100ms (maximum time to read the code in the PSF process). The code read is displayed on the GUI.
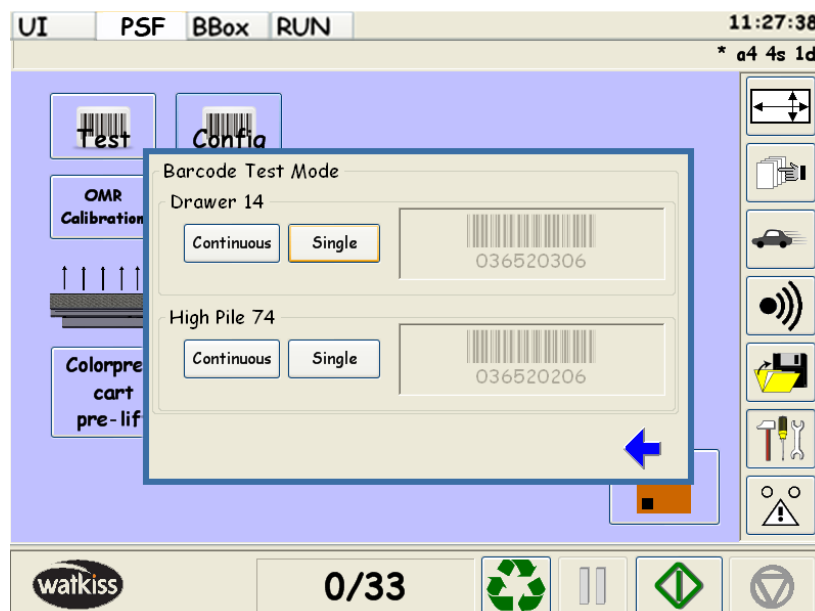
- Press on the blue arrow 🔵 to go out of this menu.

The "Continuous" mode is useful to place manually the Drawer barcode assembly according to the printed barcode. In the High Pile station, the "continuous" mode is also useful to check if the printed barcode is correctly scanned and to check the barcode scanning area.

The barcode reader has the best reading results when the scanning area begins just before the code and continues after the code.

Paper feeding direction.

Initial issue: 05/11
Latest revision: 03/13

POWERSQUARE SHEET FEEDER

B. Test via BCR :

When the barcode reader is in **"Test Mode"**, a red beam is visible on the paper.
The reader is scanning to read the barcode printed on the paper.

This operation is useful to check that the red beam of the scanner is well located on the barcode printed on the sheet.

For the Drawer Station :

Put a sheet in the Drawer with the barcode on the rear of the sheet (trail edge) and visible through the cover (face up).

Press **3** sec. the small black button located below LEDs of the sensor (barcode reader). The red beam is visible on the sheet.

Note: The beam can be actuated via Pref Menu / Barcode / Test mode.

Adjust the barcode reader position for an optimal reading of the barcode which means all LEDs (including green one) of the sensor must be ON.
Power OFF the beam by pressing the small black button again (optional).

For the High Pile Station :

The procedure to put the barcode reader is **"Test Mode"** is the same than for the Drawer.

The position of the reader is automatic (done with the setup of the machine).

5) ColorPress Cart Prelift (Optional)

The ColorPress cart has a tray thinner than the other CP Bourg cart (see pictures below). So, the Prelift is different for the"color press cart" compare to the other regular CP Bourg cart kits.

- ColorPress tray height: **35**mm.
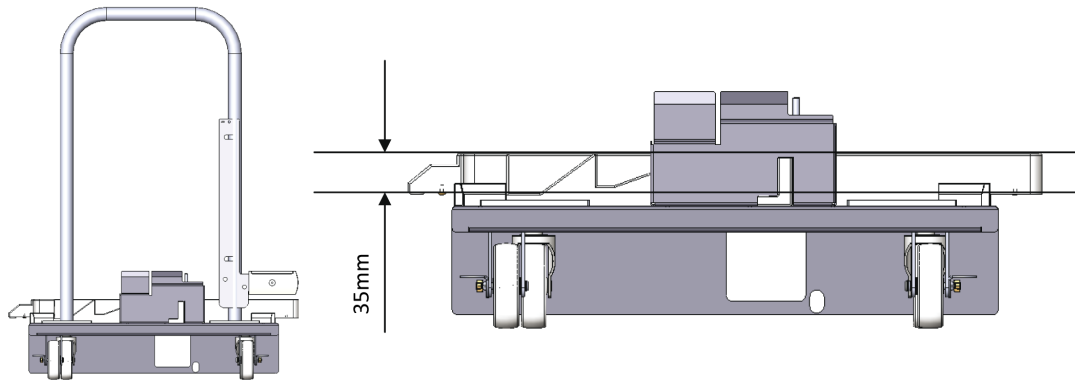
- Other CP Bourg carts: **70**mm.
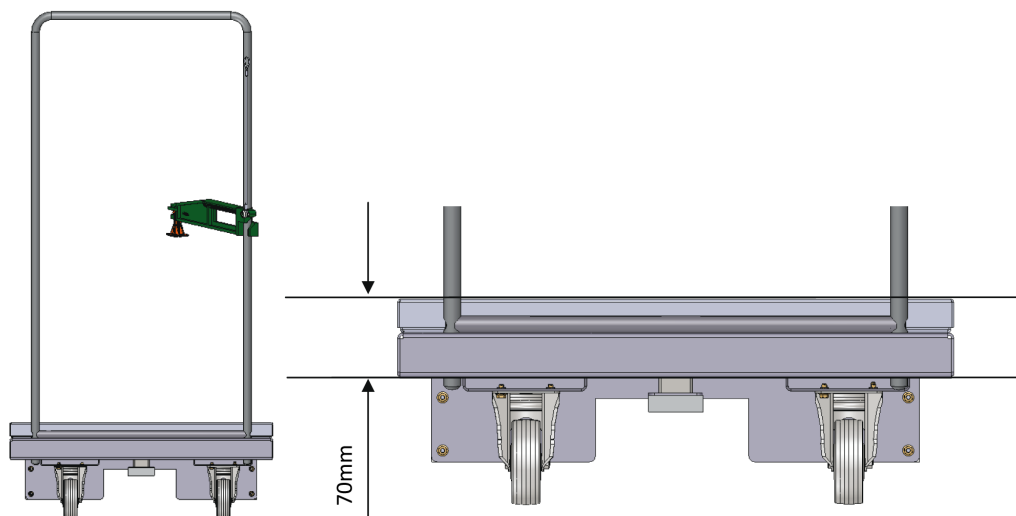
When using the Colorpress cart, press on the button **"Colorpress cart pre-lift"** on the GUI (in the preference menu). Once this button is activated, the pre-lift will be **35**mm higher. So, the Colorpress cart tray is correctly lifted ±**5**mm under the moving registration wall during the pre-lift procedure.

*Note: Once activated (button in green color), the **"Colorpress cart pre-lift"** is enable only for **1** pre-lift setup !*
For a second pre-lift setup, the button must be re-activated again

Button is green to show that the Colorpress cart prelift is actived

PSF Preferences menu
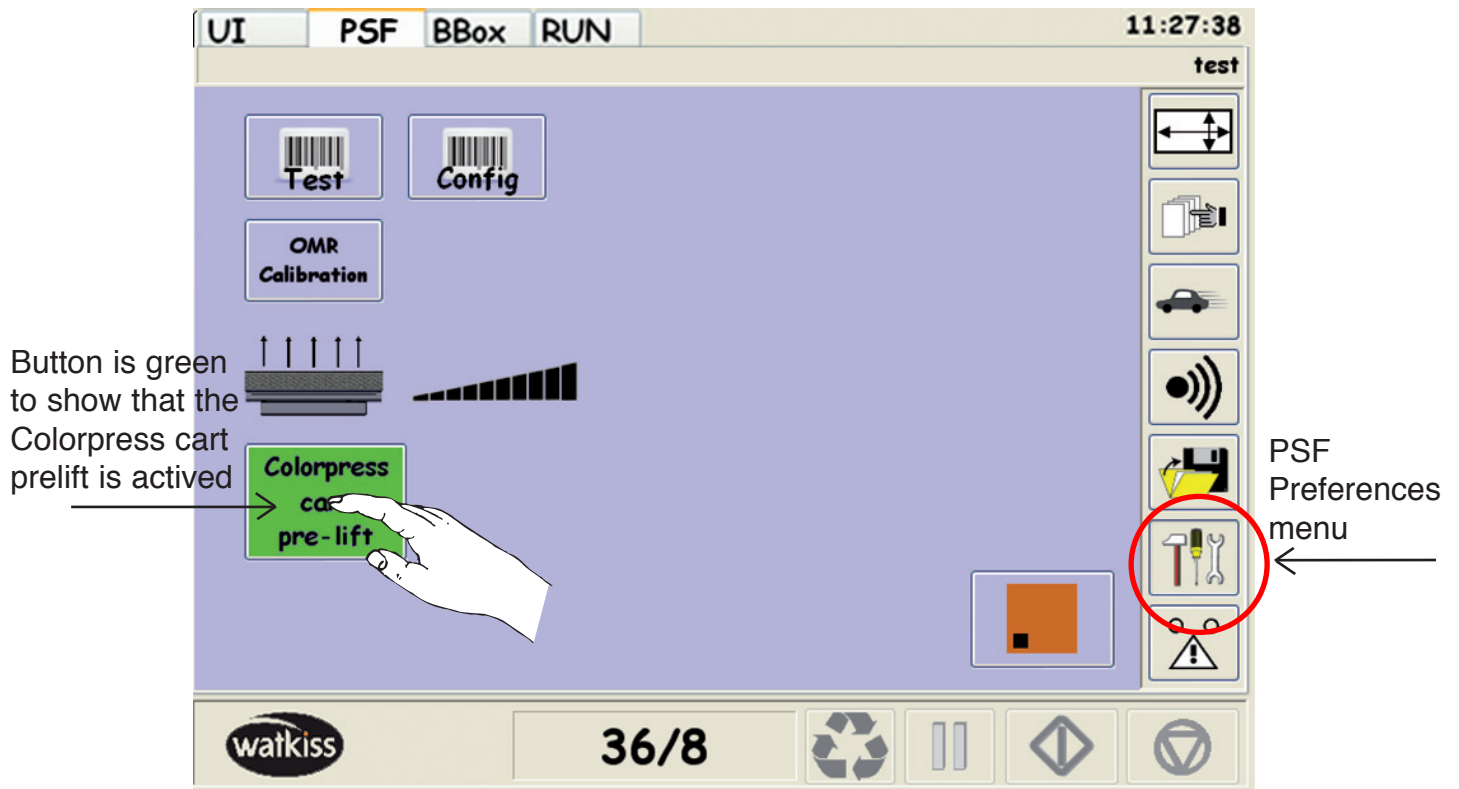
7.7 PSF RUN Menu

This menu gives an overview and allows parameters adjustment while machine is running.

Press the PSF button to access to the setting parameters.
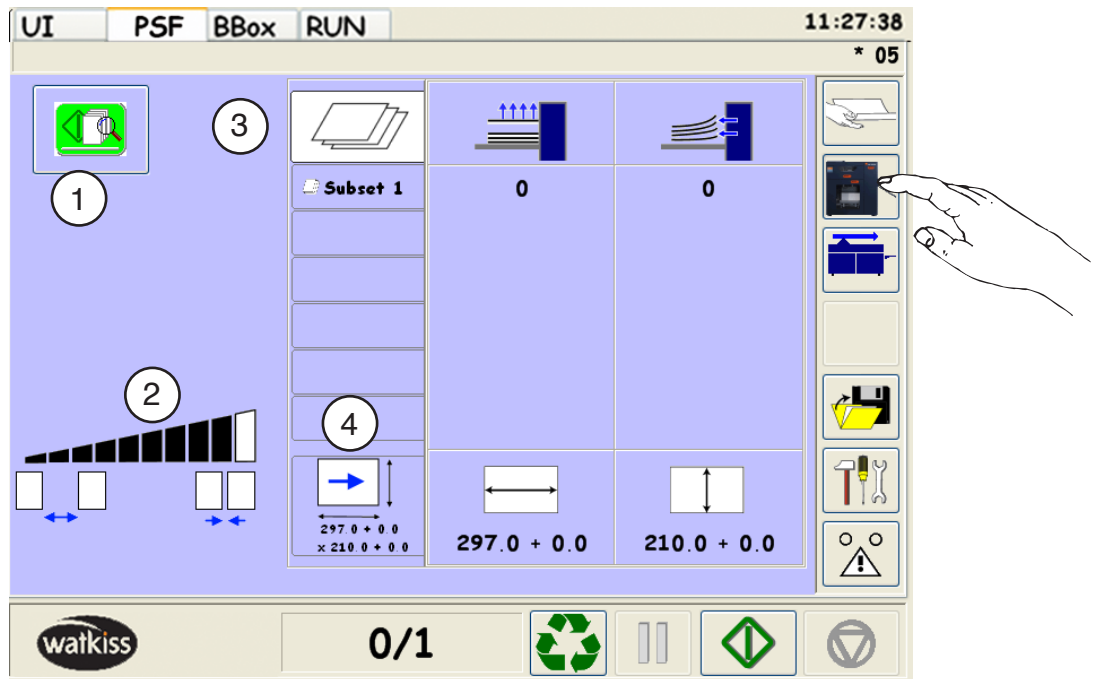
1) Allows testing a proof set, before starting production.

3 adjustments are available:

2) Speed productivity.
3) Air levels for the suction and the blower.
4) High Pile paper stops position.

7.7.1 Adjustment of the suction and the blower levels for the feeding :

According to the paper format and the paper weight, the air levels of the suction and the blower are setup automatically. Corrections can be applied in case of special paper.

Example:- In case of sticky paper: Increase the blower level.
- In case of heavy paper: Increase the suction level.

Press on the ⬜ button to modify the air level of the suction and the blower (**1**).
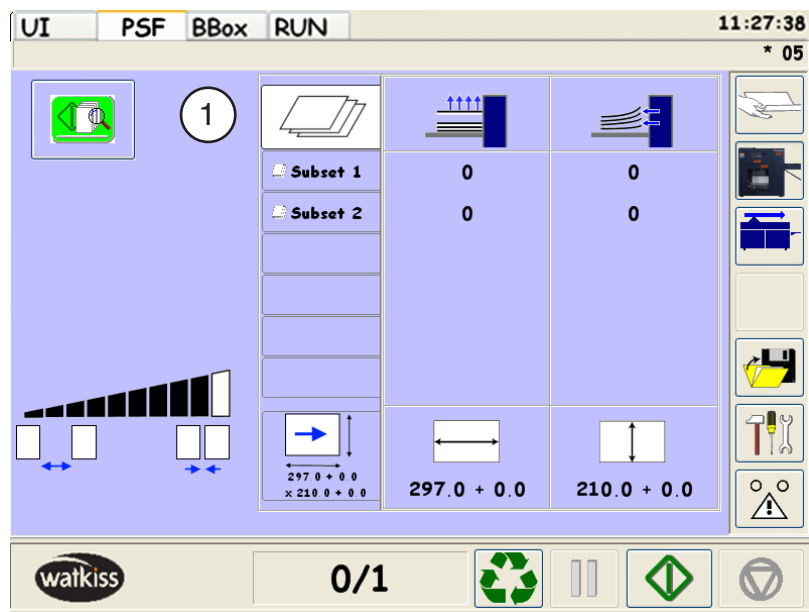
Select the subset (**2**) that needs air levels corrections and press **"+" or "-"** to adjust the suction (**3**) and the blower (**4**).

POWERSQUARE SHEET **FEEDER**
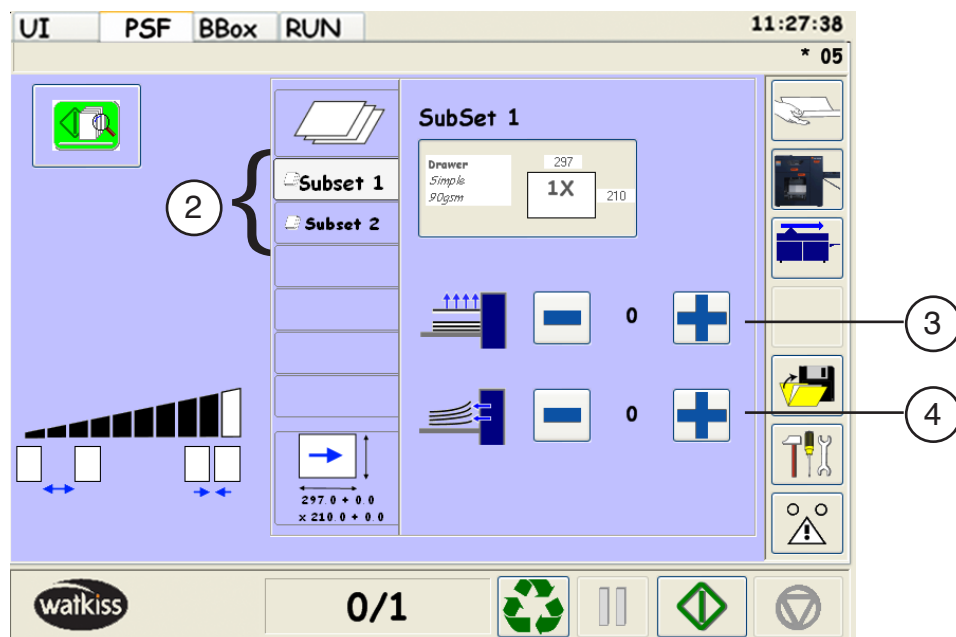
7.7.2 Adjustment of the High Pile paper stops :

According to the paper format, the High Pile paper stops are setup automatically against the paper pile. However, corrections can be applied in case of special paper.

For example:

- In case of paper with curl: Tighten the paper stops.

- If the barcode reader does not scan on the barcode printed on the paper.
  Adjust the position of the rear stop (and so the position of the barcode reader)
  to have a good barcode reading.

Scanned area

3° -> 5°
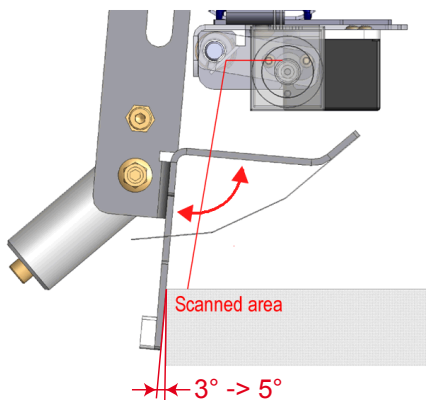
*Note: Check that the angle between paper stop and the paper is close to **3°** - **5°**.*
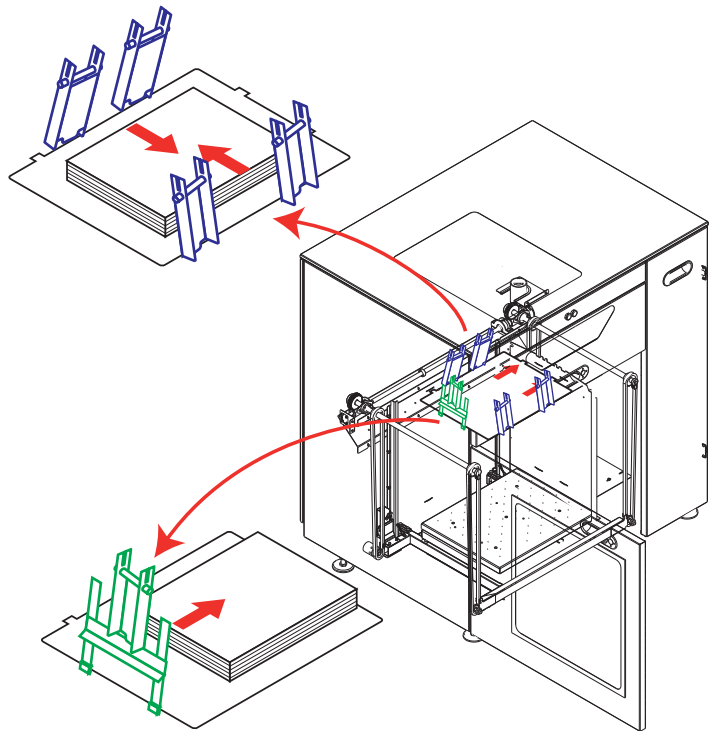
Press the [button] button (**1**) to modify the High Pile paper stops position:
- **REAR** Stop position adjustment (2).
- **LATERAL** Stops position adjustment (3).

POWERSQUARE SHEET FEEDER
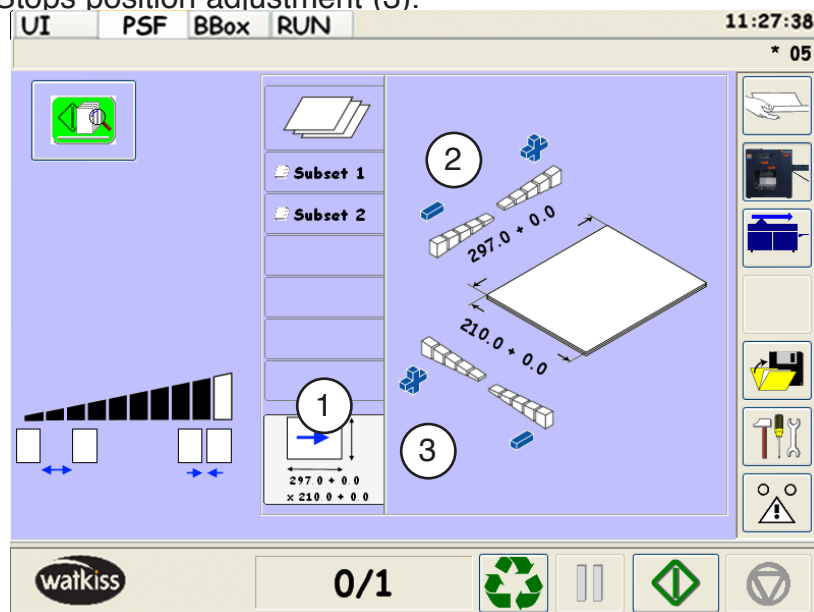
8.1 Barcode reader specifications

8.1.1 *Locations of the barcode reader in the PSF*

Bare code reader - Drawer

Drawer station

Barcode reader - High Pile

Paper Output

High Pile station

Cart
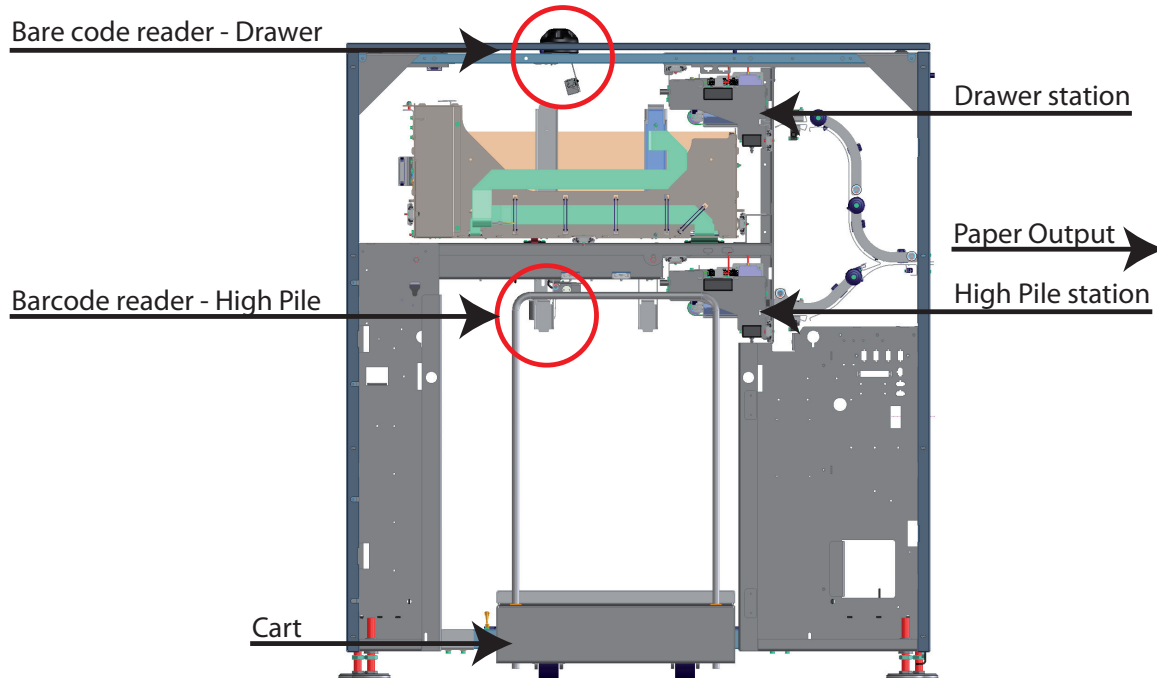
Note: The barcode readers are an option on the PSF.

8.1.1.1 Barcode reader for the Drawer station.

The barcode reader (BCR) of the Drawer is placed on the Plexiglas of the upper cover of the machine. With the magnets, the BCR can be moved easily in every position.

The barcode must be printed FACE UP and at the bottom of the sheet. But most of the time, we put the barcode on the trail edge of the sheet.

8.1.1.2 Barcode reader for the High Pile station.

In the High Pile station, there are rear and lateral stoppers which maintain the paper during feeding. According to the paper size, the setup of the stoppers is done automatically.
The barcode reader (BCR) of the High Pile is mounted on the rear stop.

The setup of the BCR is also done automatically, but the barcode must be printed FACE UP and on the trail edge of the sheets and center in crosstrack.

8.1.2 Current locations of the barcode on the paper

8.1.2.1 For the Drawer station

Stop width

157 mm · 50 mm

259 mm · 150 mm · 109 mm · 53,2 mm · 20 mm

279 mm x 216 mm (letter)
11'' x 8,5''

203,2 mm x 177,8 mm (BSF min)
8'' x 7''

DEAD AREA

READING KO

READING OK
with barcode in reverse position 180°

Paper path direction

DRAWER BARCODE : READING AREA

571,5 mm x 364 mm (BSF max)
22,5'' x 14,33''

READING OK

60 mm max

5 mm min

123456789012
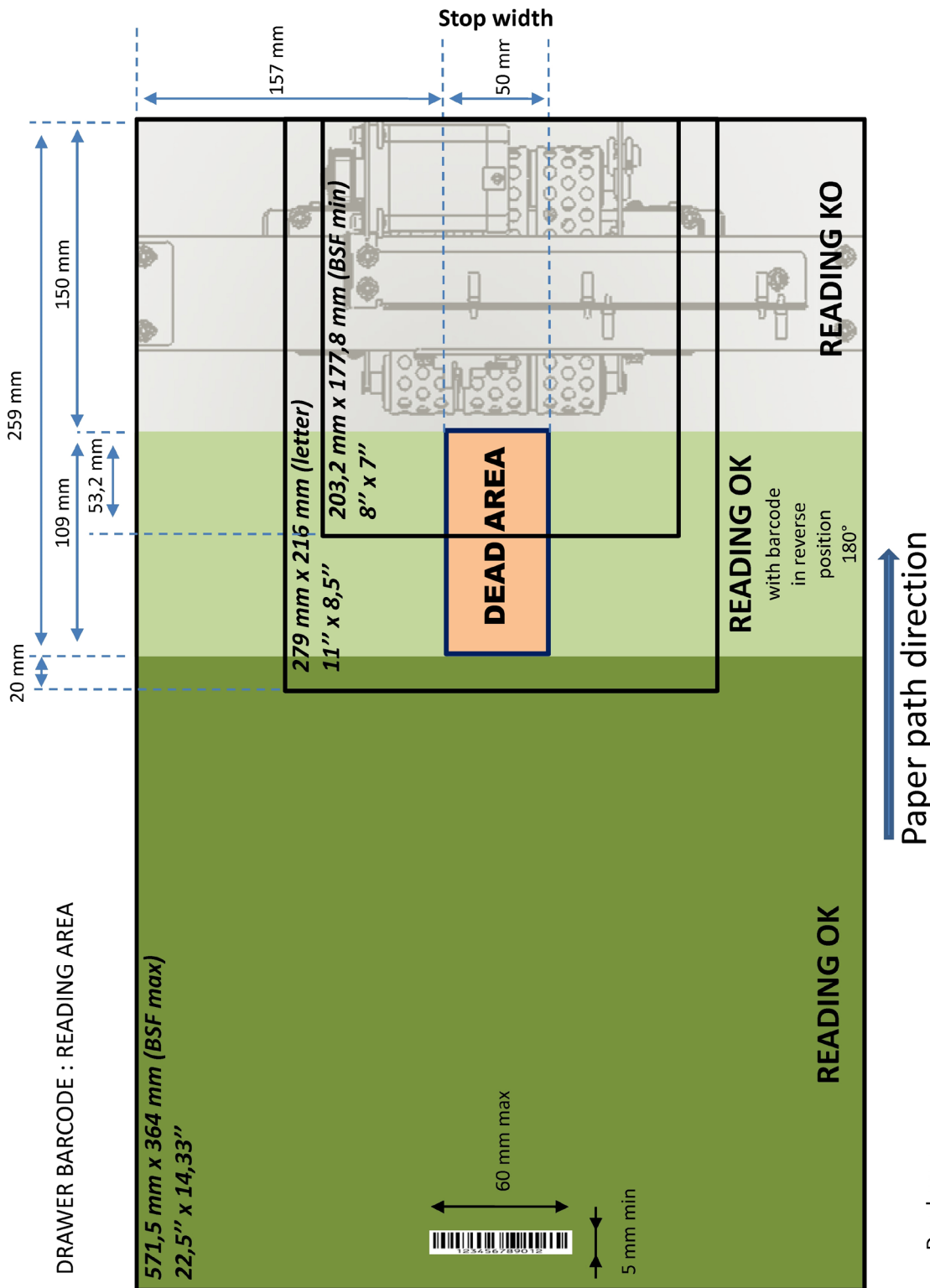
- « Dead area » :
For formats less than 259 mm (intrack), there is a « dead » area of 15 mm x 50 mm on the trail edge of the sheet due to the beam cut by the stop
- For US letter and higher format, the barcode reader can be let in standard position if the barcode is on the trail edge of the sheet
- Minimum height of the barcode = 5 mm
- Minimum resolution = 0.15mm (6 mils)
- The barcode must be printed on the upper face of the sheet

Drawer Barcode reader position :

Barcode reader position by default	**Barcode reader in reverse position (180°)**
Paper Process →	Paper Process →

---
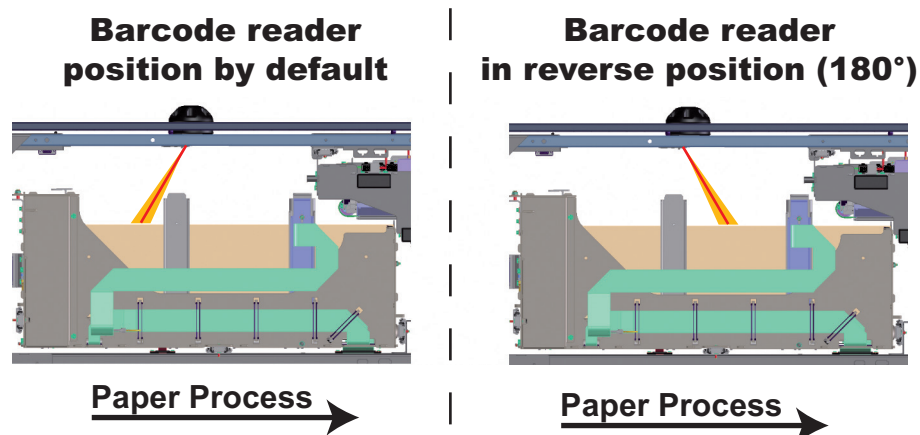
*Note: - The Barcode reader can be turned of **90°** to read barcode perpendicular to the paper path.*

*- With the first barcode kit (**9591941**), the minimum barcode height printed on the paper is **10** mm.*

Center line

HIGH PILE BARCODE : READING AREA

571,5 mm x 364 mm (BSF max)
22,5'' x 14,33''

279 mm x 216 mm (letter)
11'' x 8,5''

203,2 mm x 177,8 mm (BSF min)
8'' x 7''

Paper path direction

Reading area, according to paper size

60 mm

40 mm

5 mm min
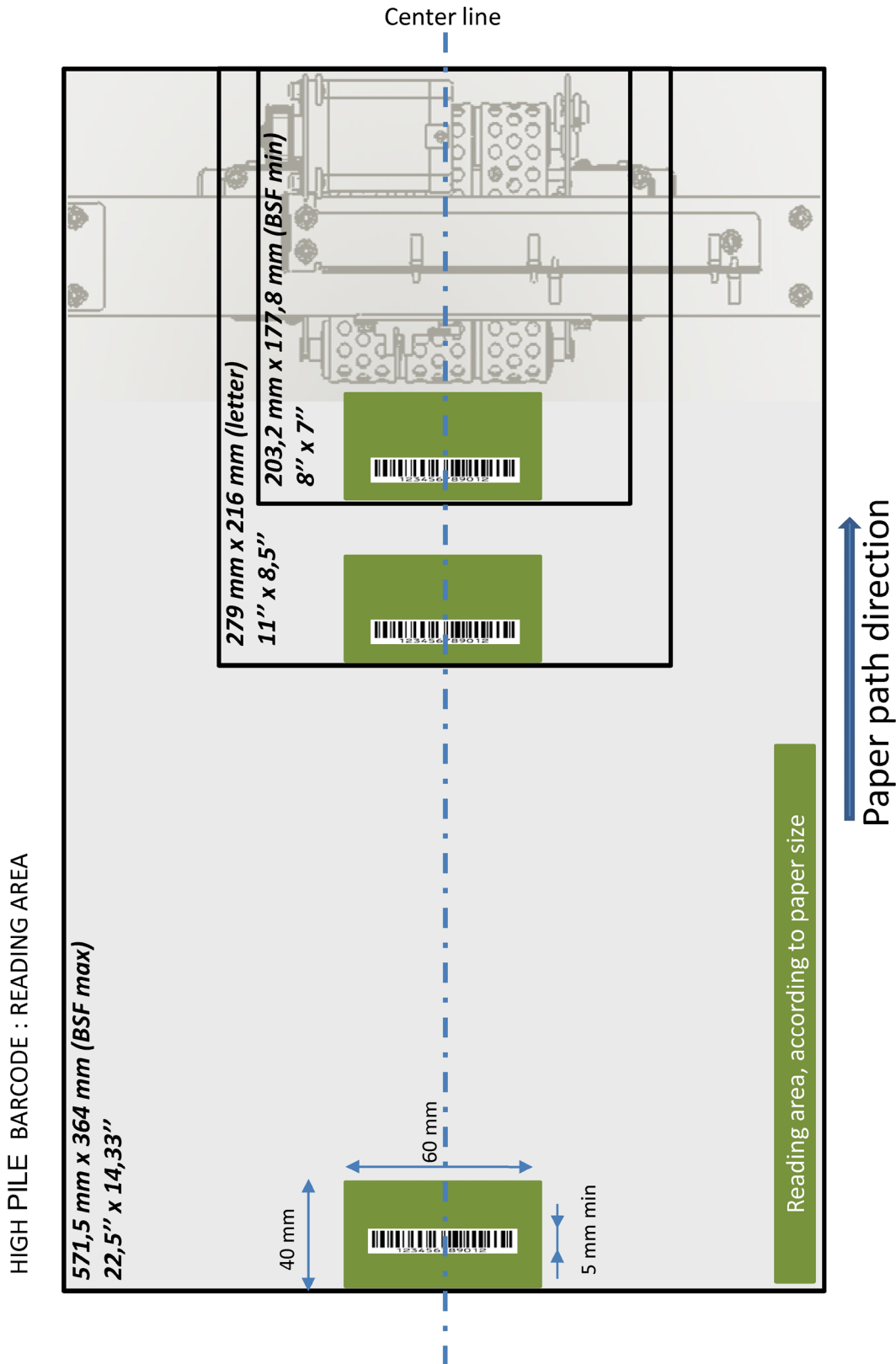
-The barcode reader for the highpile is attached to the paper rear stop
-It gets into position with the paper stop without manual operation
-The barcode should be printed in a rectangle of 60 x 40 mm centered on the trail edge of the sheet
-Minimum height of the barcode = 5 mm
-Minimum resolution = 0.15mm (6 mils)
-The barcode must be printed on the upper face of the sheet

8.1.3 Code definition

The code used is code **39**.

The barcode definition is given on each sheet. The barcode MUST be on the upper face of the paper.

The barcode definition can be defined by the user on the GUI.

8.1.3.1 _Barcode definition Menu_

In the "PSF preference" menu, press on the button [Config] to enter in the "Barcode definition" menu.

Barcode
definition Menu

PSF Preferences
menu
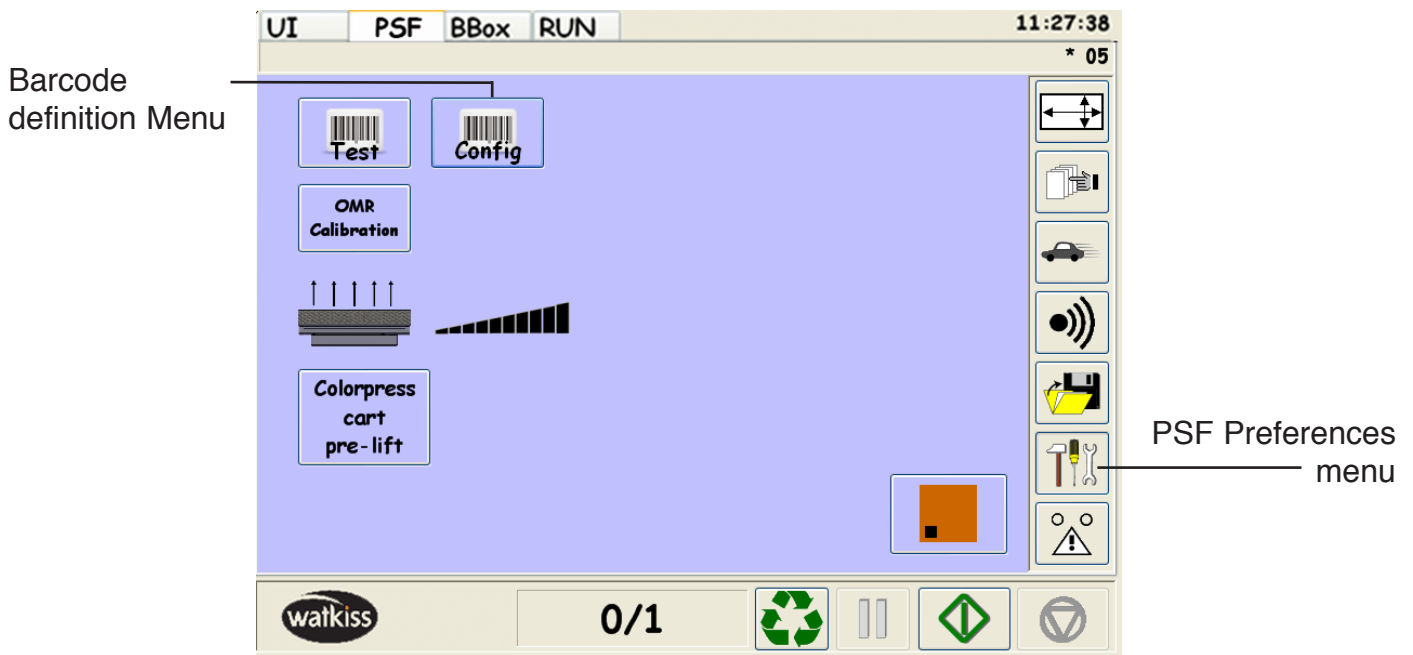
Select the Barcode definition N°1.

Barcode
definition
N°1
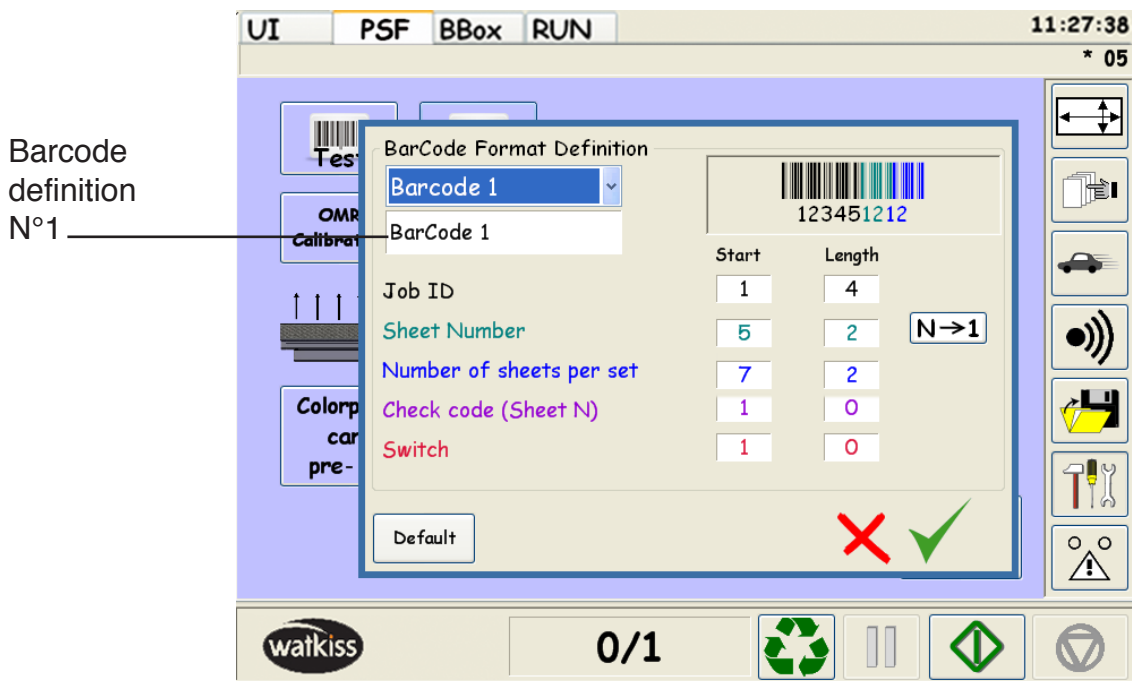
The Barcode definition (N° 10) is automatically updated at JDF reception with job integrity. These values are coming from the WFM for the first step of JDF with integrity implementation.
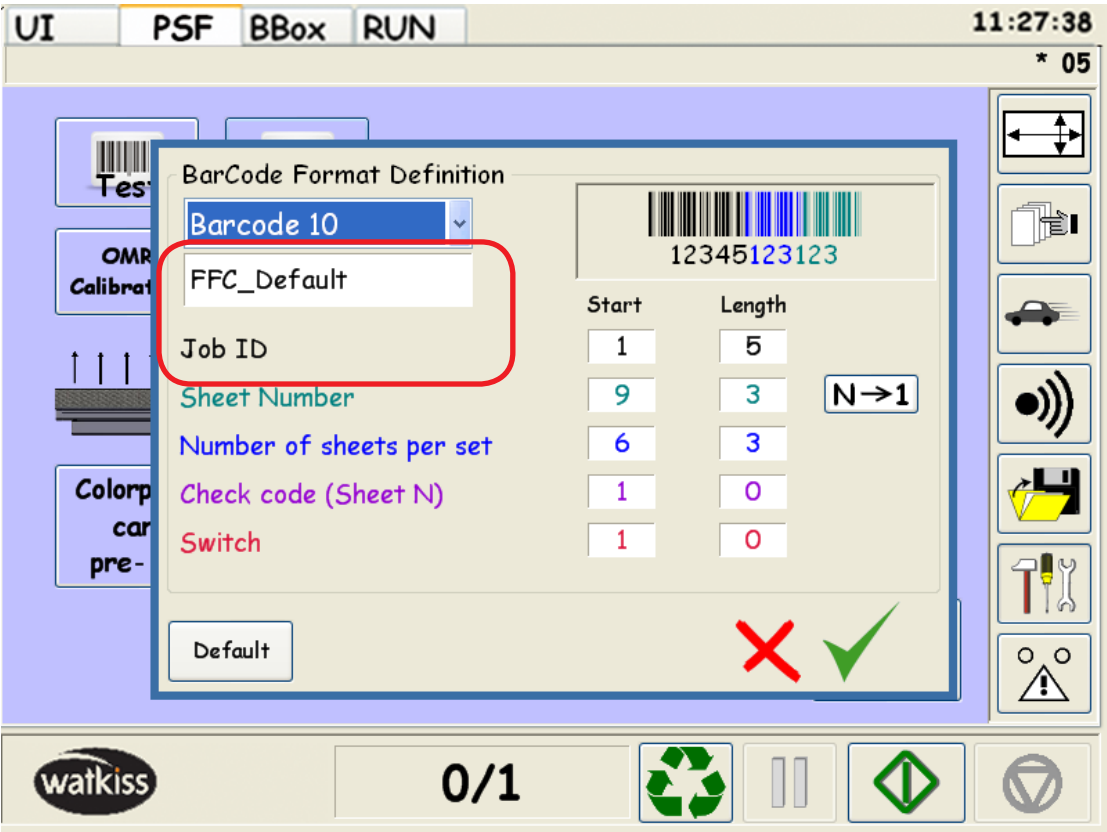
Note: Item **10** will always be used and updated by the WFM for the FFC BarCode structure.

Note: Do not use item **10** to strore customer barcode structure when JDF is used with FFC / Ultimate Bindery with Job integrity.

The following screen explains the way to program the barcode definition:

PSF Preferences menu
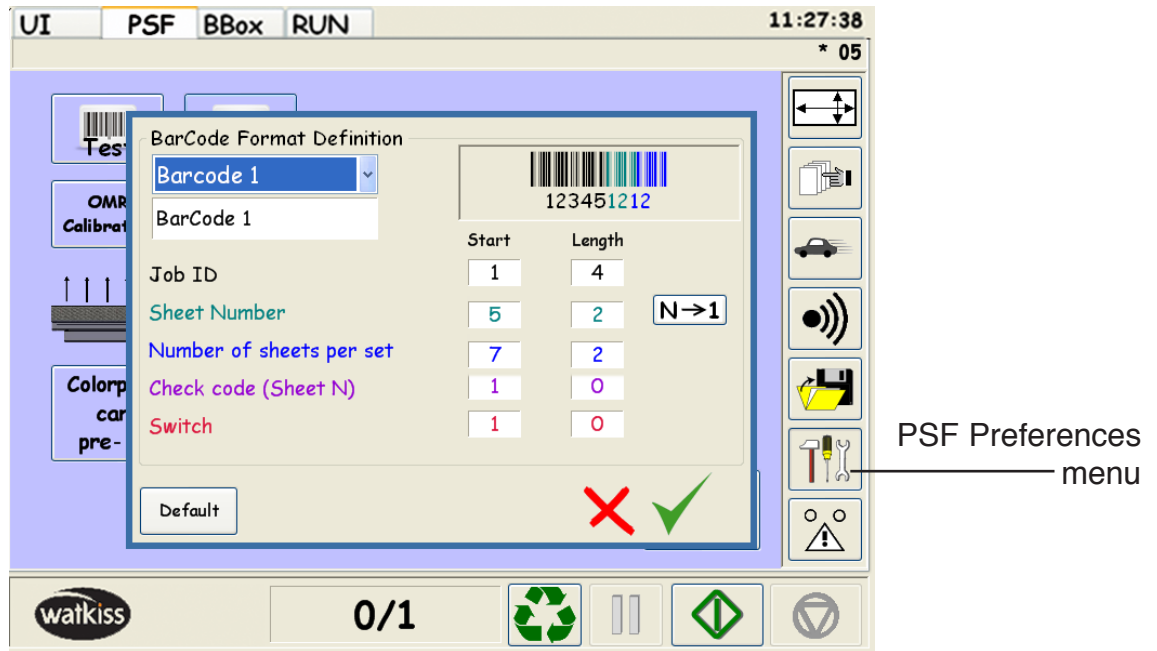
- if length = **0** then the field is not used.
- if length ≠ **0** then field is activated.

The barcode definition has 5 fields and is like aaaabbccde.
- aaaa = Job ID (reference number of the job).
- bb = N° of the sheet of the booklet.
- cc = Number of sheets in the booklet.
- d = Check code: if length = **0** then Check code is not used.
  if length = **1** then Check code is activated to identify the sheet N used for N➜**1** or **1**➜N. The *"Number of sheets per set"* field can be desactivated.
- e = Switch (end of subset): if length = **0** then Switch is not used.
  if length = **1** then Switch is activated to identify the end of the subset.
  This function can be used if the barcode is printed on the lower face of the sheet and so read into the conveyor.

The barcode sheet counter can also be selected as N➜1 and 1➜N.
- N➜**1** : The cover is the LAST sheet fed and has the sheet number **1**.
  This mode is the default mode for CP Bourg finishers (BDFE, BME,….).
- **1**➜N : The cover is FIRST sheet fed and has the sheet number **1**.
  This mode is specific for Watkiss PSQ**200** bookletmaker. The stitching head are from the bottom, so the cover is fed first, and afterward the content of the booklet.

Note: Job ID and Sheet Number are required fields

Example N°1 – With the default barcode definition: aaaabbcc.
The code "9999 01 05" has the following meaning:
- **9999** = job ID.
- **01** = n° of the sheet of the booklet – This sheet is the sheet N°**1**.
- **05** = number of sheets in the booklet – In this case, the booklet has **5** sheets.
- This sheet will be the last sheet fed because the mode N➔**1** has been selected.
  The first sheet fed will be the sheet with the code **"9999 05 05"**.

- Check code (d) and Switch (e) are not used because the length of the field = **0**.

The following tab explains the barcode definition:

	JOB ID				SHEET N°		NUMBER OF SHEET		CHECK CODE	SWITCH
CODE	9	9	9	9	0	1	0	5	-	-
FIELD	a	a	a	a	b	b	c	c	d	e
DIGIT POSITION	1	2	3	4	5	6	7	8	1	1
LENGTH OF THE FIELD	4 Digits				2 Digits		2 Digits		0 Digit	0 Digit

BarCode Format Definition

Barcode 1

BarCode 1

123451212

	Start	Length
Job ID	1	4
Sheet Number	5	2
Number of sheets per set	7	2
Check code (Sheet N)	1	0
Switch	1	0

N➔1

Default

POWERSQUARE SHEET **FEEDER**

Example N°2 – Custom barcode definition aaaabbccde.

The code "22222 05 05 1 1" has the following meaning:
- **22222** = job ID.
- **01** = n° of the sheet of the booklet – This sheet is the sheet N°**5**.
- **05** = number of sheets in the booklet – In this case, the booklet has **5** sheets.
- This sheet will be the first sheet fed because the mode N➔**1** has been selected.
  The first sheet fed will be the sheet with the code ***"22222 05 05 1 1"***.
- Check code (d) and Switch (e) are used because the length of the field = **1**.

In this case, the JOB ID has 5 digits. See the following tab and screen to program the barcode definition for this example.

	JOB ID					SHEET N°		NUMBER OF SHEET		CHECK CODE	SWITCH
CODE	**2**	**2**	**2**	**2**	**2**	**0**	**5**	**0**	**5**	**1**	**1**
FIELD	a	a	a	a	a	b	b	c	c	d	e
DIGIT POSITION	1	2	3	4	5	6	7	8	9	10	11
LENGTH OF THE FIELD	5 Digits					2 Digits		2 Digits		1 Digit	1 Digit

Barcode definition N°2

This barcode job definition has been stored with the barcode job definition N°2.
Up to 10 different barcode job definition can be stored in the GUI.

> Note: With the software package WFM **03**.**00**.**02** (TAG BSF **431** – Soft GUI minimum **05**.**04**.**90**), the first digit begin to ***"1"*** *(see "digit position"* line in the tab above).
>
> With previous software version, the first digit begin to *"0"*.

8.1.4 Barcode job setup

Go into the "PSF Edit Subset" menu and select the barcode mode in the current subset.

« PSF Edit subset » Menu
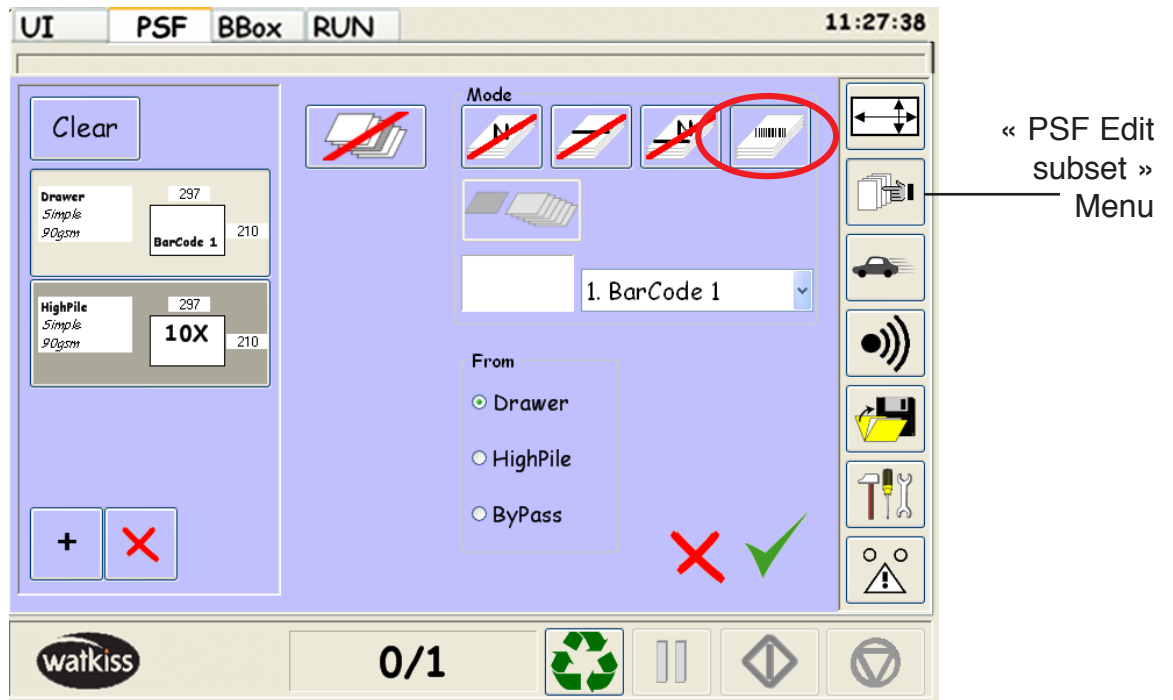
Select also the number of the code definition in the current subset.
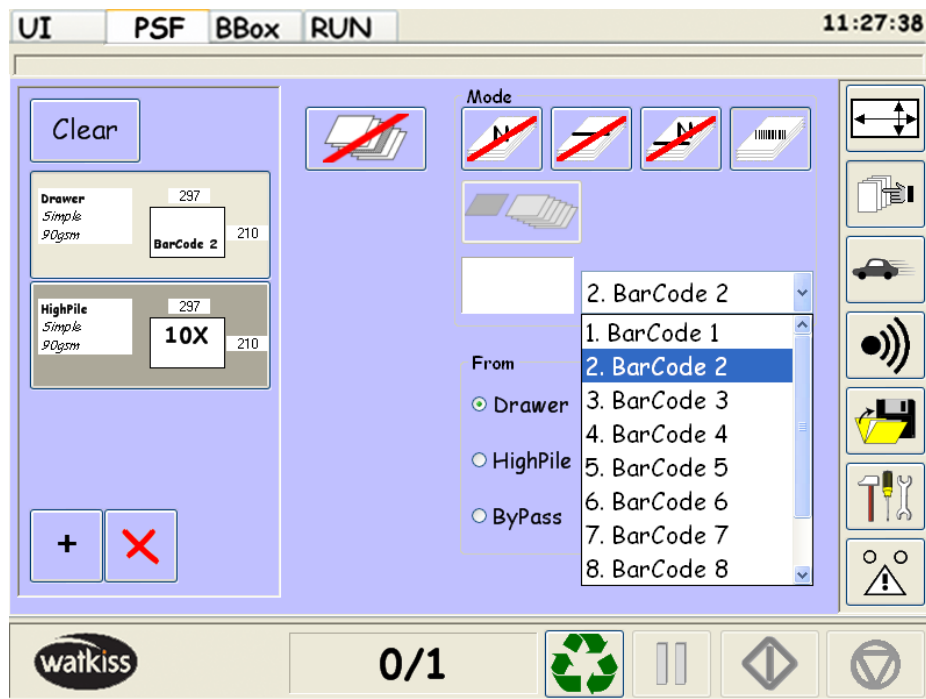
Note: For each subset of the job, the code definition MUST be the same.

When the machine is running, informations about the job in process are available in UI tab

By pressing JDF button if JDF Cancel Job is active

1) JDF Job Name

2) Job summary
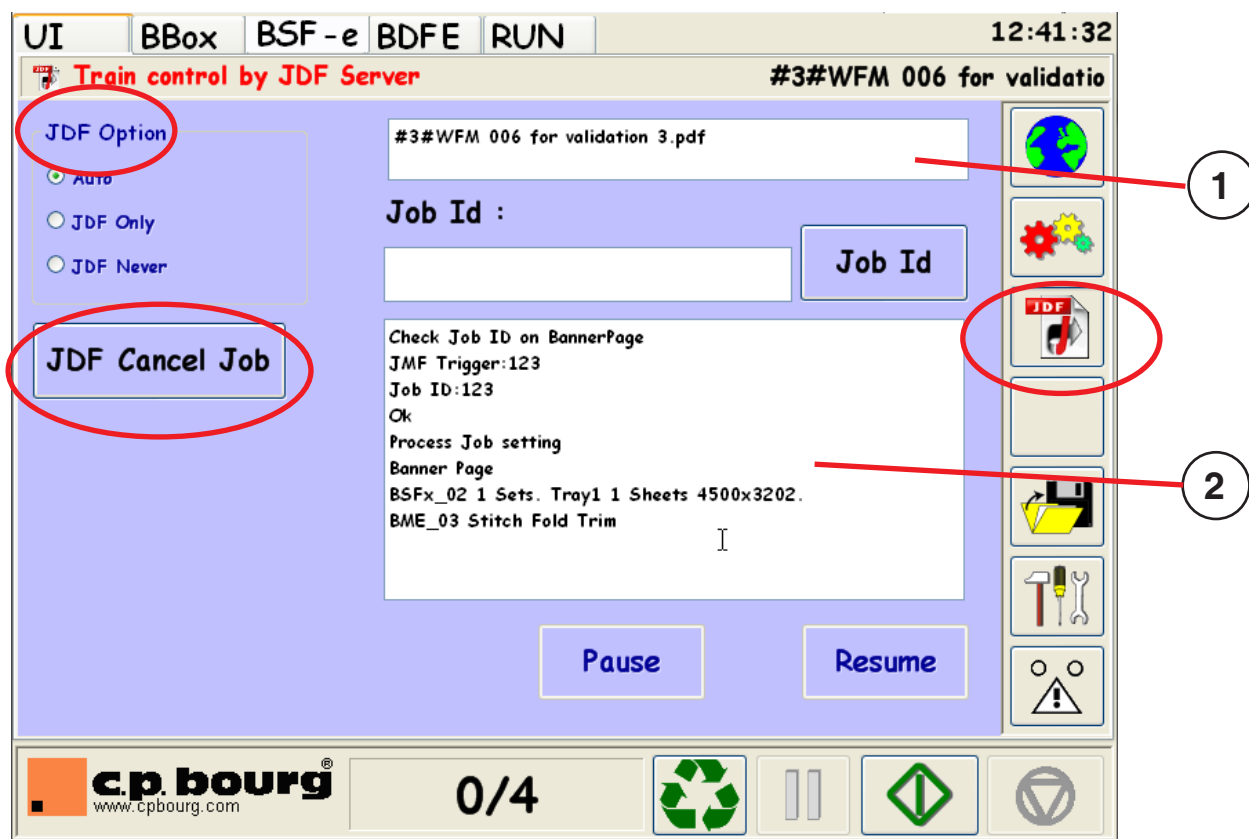
8.1.5 Current barcode applications

There are **6** operational applications.
The applications **1**, **2**, **3** and **4** are specific for CP Bourg bookletmaker.
The barcode sheet counter is N➜**1**.
The applications **5** and **6** are specific for Watkiss PSQ**200** bookletmaker.
The barcode sheet counter is **1**➜N.

8.1.5.1 *Feeding "X" sheets from the High Pile station + "X" sheets (cover) from the Drawer with integrity checked in the High Pile station AND in the Drawer*

X can be **1**, **2**,... or N sheets,.… Barcode is checked in the High Pile station and in the Drawer.

The cover must be printed separately (with barcode) and placed in the Drawer station.

The content of the booklet MUST BE PRINTED **1**➜N and placed in the High Pile station.
"N" represents the sheet on the top of the pile. This sheet will be the fed first and will be the sheet inside the booklet.
"1" represents the last sheet fed (Cover).

For the example below, the sheet on the top of the High Pile station will be the first sheet fed and will be the sheet inside the booklet (sheet N°**6** - Barcode **00000606**).

The second sheet fed will be the second sheet on the top of the High Pile
(sheet N°**5** – Barcode **00000506**).

The last sheet fed into the booklet will be the cover from the Drawer (sheet N°**1** - Barcode **00000106**).

> **Example:** *First subset :* **5** *sheets from the High Pile station (*with BCR integrity checked)*.*
> Second subset : 1 cover from the Drawer station (with BCR integrity checked).
> Barcode sheet counter : N➜1.

Sheets in the High Pile Station:

| 1st sheet sent to the booletmaker | 2nd sheet sent to the booletmaker | 3rd sheet sent to the booletmaker | 4th sheet sent to the booletmaker | 5th sheet sent to the booletmaker |

Sheets in the Drawer station:

6ᵗʰ sheet and last sent to the booletmaker (cover).
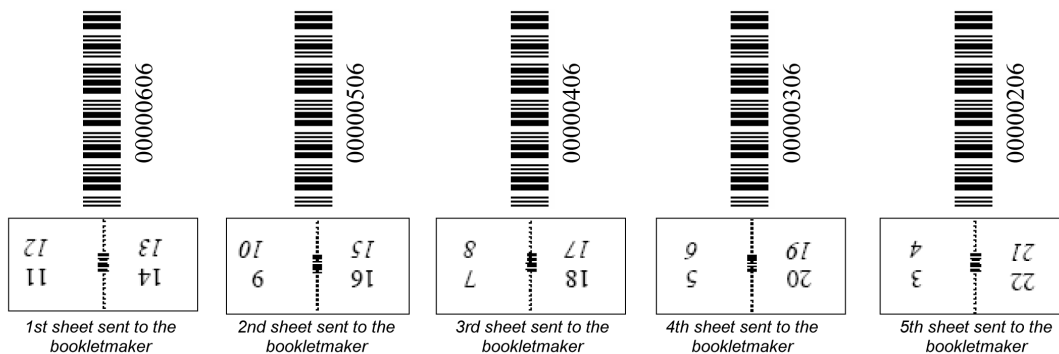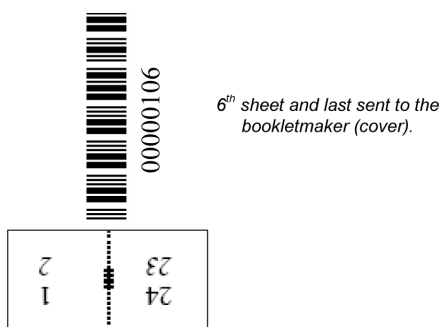
8.1.5.2 *Feeding "X" sheets from the High Pile station + "X" sheets from the Drawer with integrity checked only in the High Pile station (not in the Drawer station).*

X can be **1**, **2**,... or N sheets,….
Barcode is checked ONLY in the High Pile (NOT in the Drawer station).

The cover must be printed separately (without barcode) and placed in the Drawer station.

The content of the booklet MUST BE PRINTED **1**➔N and placed in the High Pile station.

"N" represents the sheet on the top of the pile. This sheet will be fed first and will be the sheet inside the booklet.
"1" represents the last sheet fed from the pile.

For the example below, the sheet on the top of the High Pile station will be fed first and will be the sheet inside the booklet (sheet N°**5** - Barcode **00000505**).

The second sheet fed will be the second sheet on the top of the High Pile (sheet N°**4** – Barcode **00000405**).

The last sheet fed into the booklet will be the cover from the Drawer (No Barcode printed on!).

> **Example:** *First subset :* **5** *sheets from the High Pile station (with BCR integrity checked).*
> Second subset : 1 cover from the Drawer station (No Barcode printed on!).
> Barcode sheet counter : N➔1.

Sheets in the High Pile Station:

| 1st sheet sent to the booletmaker | 2nd sheet sent to the booletmaker | 3rd sheet sent to the booletmaker | 4th sheet sent to the booletmaker | 5th sheet sent to the booletmaker |
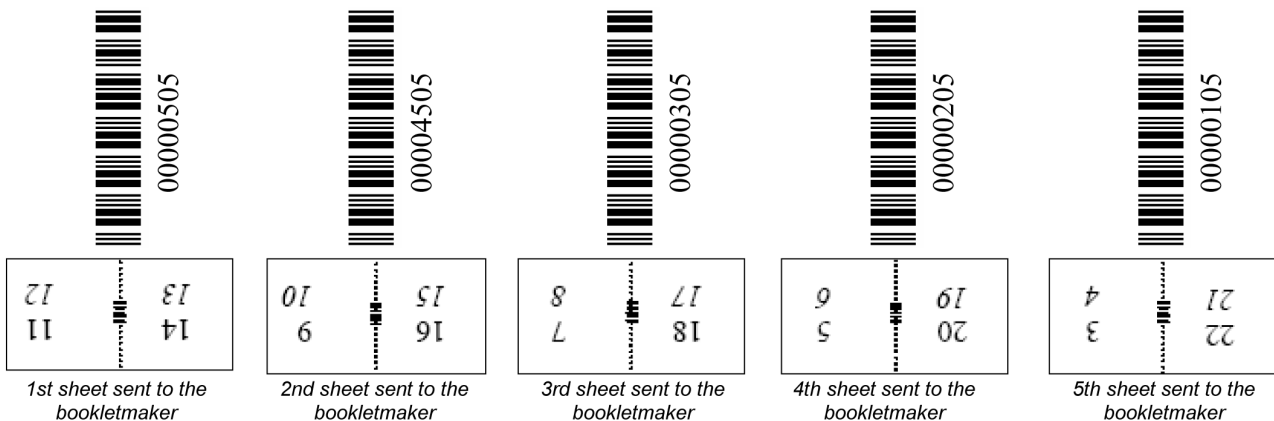
Sheets in the Drawer station:
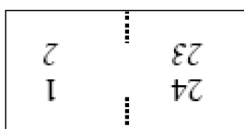
6th sheet and last sent to the booletmaker (Cover)

NO BARCODE PRINTED ON!

Sheet fed with the manual mode.

8.1.5.3 _Feeding "X" sheets ONLY from the High Pile STATION with integrity checked_

X can be **1**, **2**,... or N sheets,…. from the High Pile.

The content of the booklet MUST BE PRINTED **1→**N and placed in the High Pile station.
_"N"_ represents the sheet on the top of the pile. This sheet will be fed first and will be the sheet
  inside the booklet.
_"1"_ represents the last sheet fed (Cover).

For the example below, the sheet on the top of the High Pile station will be fed first and will be
the sheet inside the booklet (sheet N°**6** - Barcode **00000606**).

The last sheet fed into the booklet will be the cover from the High Pile station (sheet N°**1** -
Barcode **00000106**).

> _Example:_ **6** _sheets from the High Pile (with barcode). NO sheet in the Drawer._
>   Barcode sheet counter : N**→**1.

No sheet from the Drawer station:

Sheets in the High Pile Station:

| 1st sheet sent to the bookletmaker | 2nd sheet sent to the bookletmaker | 3rd sheet sent to the bookletmaker | 4th sheet sent to the bookletmaker | 5th sheet sent to the bookletmaker | 6th sheet sent to the bookletmaker |
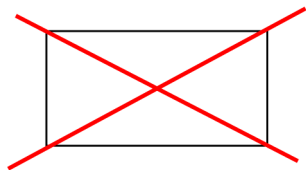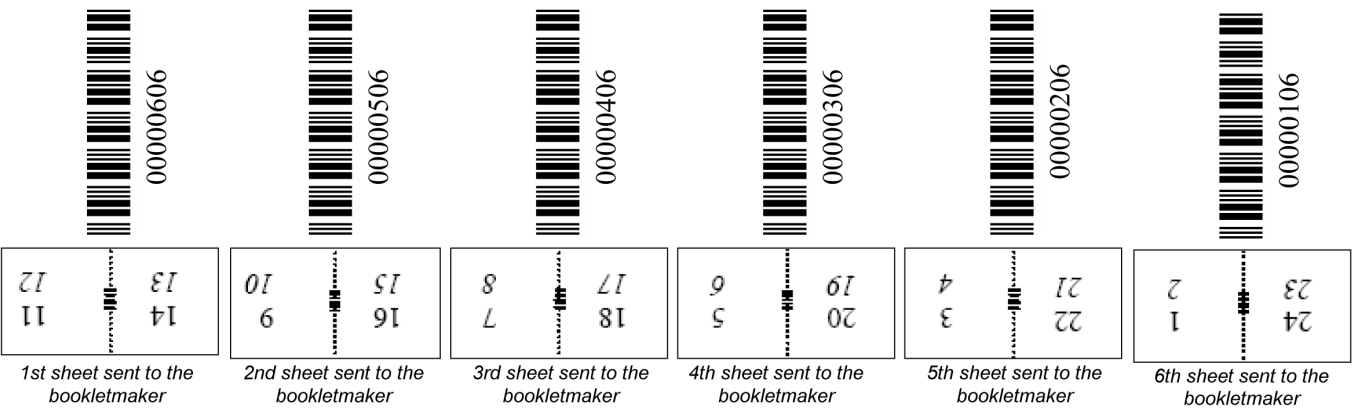
8.1.5.4 Feeding "X" sheets ONLY from the Drawer STATION with integrity checked in the Drawer.

X can be **1**, **2**,... or N sheets,.... from the Drawer.

The content of the booklet MUST BE PRINTED **1➔**N and placed in the Drawer station.

"N" represents the sheet on the top of the Drawer paper pile. This sheet will be fed first and will be the sheet inside the booklet.

"1" represents the last sheet fed (Cover).

For the example below, the sheet on the top of the Drawer paper pile will be fed first and will be the sheet inside the booklet (sheet N°**6** - Barcode **00000606**).

The last sheet fed into the booklet will be the cover from the Drawer station (sheet N°**1** - Barcode **00000106**).

> **Example: 6** sheets from the Drawer. NO sheet in the High Pile.
> Barcode sheet counter : N➔1.

Sheets in the Drawer:

00000606	00000506	00000406	00000306	00000206	00000106
12 / 13 11 / 14	10 / 15 9 / 16	8 / 17 7 / 18	6 / 19 5 / 20	4 / 21 3 / 22	2 / 23 1 / 24
1st sheet sent to the bookletmaker	*2nd sheet sent to the bookletmaker*	*3rd sheet sent to the bookletmaker*	*4th sheet sent to the bookletmaker*	*5th sheet sent to the bookletmaker*	*6th sheet sent to the bookletmaker*
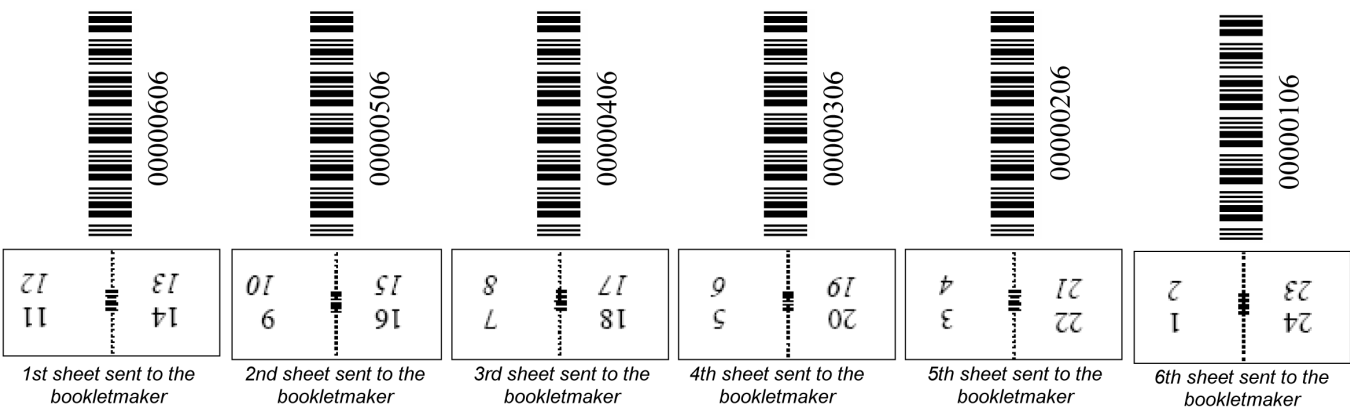
No sheet from the High Pile:
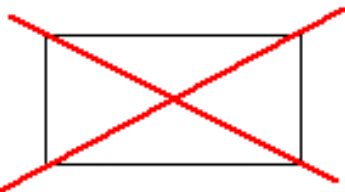
8.1.5.5 *Feeding "X" sheets from the Drawer station + "X" sheets from the High Pile with integrity checked in the Drawer AND in the High Pile station.*

This application is specific for Watkiss PSQ**200** bookletmaker. The stitching head are from the bottom, so the cover is fed first, and afterward the content of the booklet. The barcode sheet counter is **1➔**N.

X can be **1**, **2**,... or N sheets,….

Barcode is checked in the Drawer and in the High Pile station.

The cover must be printed separately (with barcode) and placed in the drawer station.

The content of the booklet MUST BE PRINTED N➔1 and placed in the High Pile station.

"1" represents the **1**st sheet of the booklet (COVER) and must be loaded in the drawer.

For the example below, the first sheet fed will be the cover from the drawer station - (sheet N°**1** – COVER – Barcode **00000106**).

The second sheet fed will be the sheet on the top of the High Pile (sheet N°**2** – **00000206**).

The last sheet fed into the finisher will be the last page of the booklet (sheet N°**6** – Barcode **00000606**).

First subset : 1 *cover from the drawer station (with BCR integrity checked).*
Second subset : 5 *sheets from the High Pile (with BCR integrity checked).*
Barcode sheet counter : 1➔ *N.*

Sheet in the Drawer station:

*1ˢᵗ sheet sent to the PSQ200 (**COVER**).*

Sheets in the High Pile Station:

| 2nd sheet sent to the PSQ200 | 3rd sheet sent to the PSQ200 | 4th sheet sent to the PSQ200 | 5th sheet sent to the PSQ200 | 6th sheet sent to the PSQ200 |
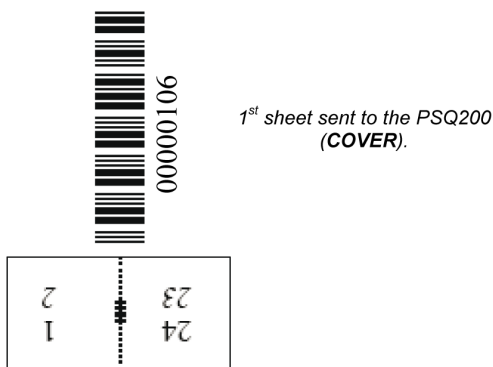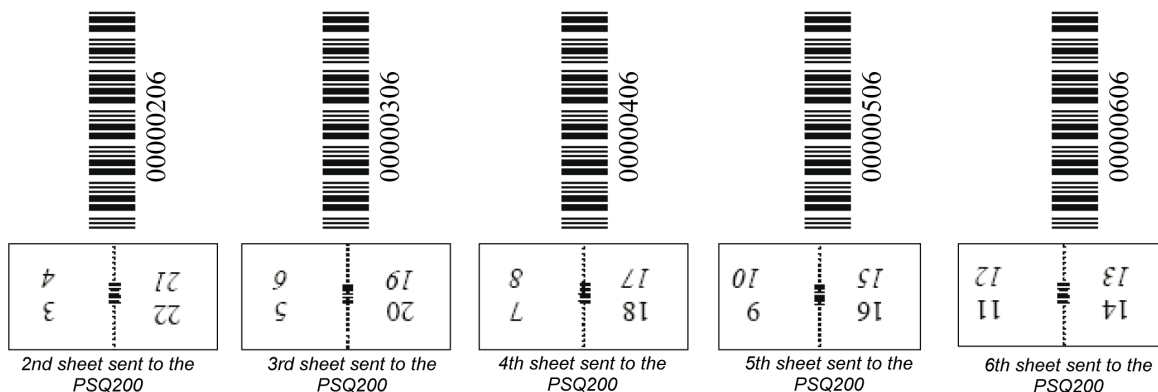
8.1.5.6 Feeding "X" sheets from the Drawer station + "X" sheets from the High Pile with integrity checked only in the High Pile station (not in the Drawer station).

This application is specific for Watkiss PSQ**200** bookletmaker. The stitching head are from the bottom, so the cover is fed first, and afterward the content of the booklet. The barcode sheet counter is **1→**N.

X can be **1**, **2**,... or N sheets,….

Barcode is checked ONLY in the High Pile (NOT in the drawer station).

The cover must be printed separately (without barcode) and placed in the drawer station.

The content of the booklet MUST BE PRINTED N**→1** and placed in the High Pile station.

"1" represents the **1**st sheet fed from the High Pile station and must be on the top of the High Pile.

For the example below, the first sheet fed will be the cover (without barcode) from the drawer station.

The second sheet fed will be the sheet on the top of the High Pile (sheet N°**1** – **00000105**).

The last sheet fed into the finisher will be the last page of the booklet (sheet N°**5** – Barcode **00000505**).

*First subset :***1** *cover from the drawer station (NO Barcode).*
          Second subset : **5** *sheets from the High Pile (with BCR integrity checked).*
          Barcode sheet counter : **1→***N.*

Sheet in the Drawer station:

2	23
1	24
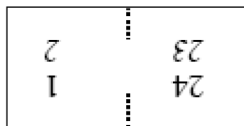
1ˢᵗ sheet sent to the PSQ200 (Cover)
NO BARCODE PRINTED ON!
Sheet fed with the manual mode.

Sheets in the High Pile Station:

00000105	00000205	00000305	00000405	00000505
4 21	6 19	8 17	10 15	12 13
3 22	5 20	7 18	9 16	11 14
2ⁿᵈ sheet sent to the PSQ200	*3rd sheet sent to the PSQ200*	*4th sheet sent to the PSQ200*	*5th sheet sent to the PSQ200*	*6th sheet sent to the PSQ200*
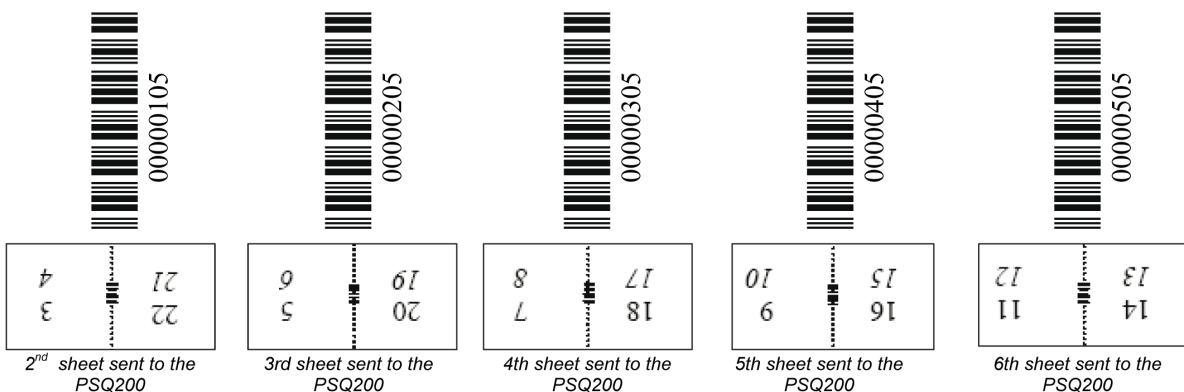
8.1.6 Check code (sheet N) application

When the BCR detects a code=**1** in the field **"Check Code"**, this sheet will be identify as the sheet N.

In this case, the field **"Number of sheets per set"** is not necessary (then length=**0**)

Example N°1

Booklet of **6** sheets: **4** sheets from the High Pile station (subset **1**) with integrity checked.

2 sheets from the Drawer station (subset **2**) with integrity checked.

- The first sheet fed will be the sheet with the code **"22222 06 06 1 0"**.
- This sheet will be the first sheet fed because the mode N➜**1** has been selected and the **"Check code (Sheet N)"** has been detected

Code : 22222 06 06 1 0
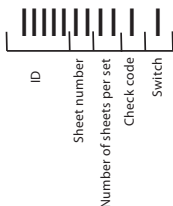
Start digit: 12345 67 89 10 11

Length: ID=5Digits
    Sheet Number = 2Digits
    Number of sheets per set =2Digits
    Check code =1Digit
    Switch = 1Digit

22222 = ID, start on the first digit with a length of 5 digits
    06 = N° of the sheet of the booklet, start on the sixth digit with a length of 2 digits
    06 = Number of sheets in the booklet, start on the eighth digit with a length of 2 digits
    1 = Check code, start on the tenth digit with a length of 1 digit
    0 = Switch, start on the eleventh digit with a length of 1 digit

Barcode sheet counter   N->1

22222 06 06 1 0
22222 05 06 0 0
22222 04 06 0 0   Subset 1: High Pile station
22222 03 06 0 1
22222 02 06 0 0
22222 01 06 0 0   Subset 2: Drawer station

Example N°2

Booklet of **5** sheets: **4** sheets from the High Pile station (subset **1**) with integrity checked.

1 sheet (or cover) from the Drawer station (subset **2**) with integrity checked.

- The first sheet fed will be the sheet with the code *"22222 05 1 "*.
- This sheet will be the first sheet fed because the mode N➜**1** has been selected. and the *"Check code (Sheet N)"* has been detected.
- *"Number of sheets per set"* and *"Switch"* fields do not appear in the code because they are not activated.

Code : 22222 05 1
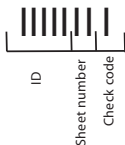
22222 = ID, start on the first digit with a length of 5 digits
05 = N° of the sheet of the booklet, start on the sixth digit with a length of 2 digits
1 = Check code, start on the eighth digit with a length of 1 digit

Start digit: 12345 67 8

ID
Sheet number
Check code

Length: ID=5Digits
Sheet Number = 2Digits
Check code =1Digit

Barcode sheet counter [N->1]

22222 05 1
22222 04 0
22222 03 0   Subset 1: High Pile station
22222 02 0

22222 01 0   Subset 2: Drawer station

8.1.7 Switch application

When the BCR detects a code=**1** in the field **"Switch"**, the PSF feeds sheet(s) from the next subset to finish the set.

Example N°1

Booklet of **6** sheets: **4** sheets from the High Pile station (subset **1**) with integrity checked.
2 sheets from the Drawer station (subset **2**) with integrity checked.

- The PSF will feed sheets from the High Pile Station (Subset**1**) until the BCR reads the **"Switch"** code=**1**, then the PSF will feed sheets from the Drawer Station.

Code :   22222 06 06 1 0

Start digit: 12345 67 89 10 11

ID / Sheet number / Number of sheets per set / Check code / Switch

Length: ID=5Digits
         Sheet Number = 2Digits
         Number of sheets per set =2Digits
         Check code =1Digit
         Switch = 1Digit

22222 = ID, start on the first digit with a length of 5 digits
01 = N° of the sheet of the booklet, start on the sixth digit with a length of 2 digits
06 = Number of sheets in the booklet, start on the eighth digit with a length of 2 digits
1 = Check code, start on the tenth digit with a length of 1 digit
0 = Switch, start on the eleventh digit with a length of 1 digit

Barcode sheet counter   N->1

22222 06 06 1 0	
22222 05 06 0 0	
22222 04 06 0 0	Subset 1: High Pile station
22222 03 06 0 1	
22222 02 06 0 0	Subset 2: Drawer station
22222 01 06 0 0	

Example N°2

Booklet of **5** sheets: **4** sheets from the High Pile station (subset **1**) with integrity checked.
1 sheet (or cover) from the Drawer station (subset **2**) with integrity checked.

- The first sheet fed will be the sheet with the code *"22222 01 0 0 "*.
- This sheet will be the first sheet fed because the mode **1→**N has been selected. and the *"Check code (Sheet N)"* has not been detected.
- *"Number of sheets per set"* does not appear in the code because it is not activated.
- The PSF change of subset (subset **2**) to complete the set because *"Switch"* code=1 is detected on fourth sheet *"22222 04 0 1 "*.

Code :   22222 01 0 0

Start digit: 12345 67 8 9
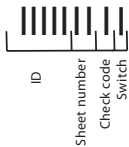
ID
Sheet number
Check code
Switch

Length: ID=5Digits
Sheet Number = 2Digits
Check code =1Digit
Switch = 1Digit

22222 = ID, start on the first digit with a length of 5 digits
01 = N° of the sheet of the booklet, start on the sixth digit with a length of 2 digits
0 = Check code, start on the eighth digit with a length of 1 digit
0 = Switch, start on the ninth digit with a length of 1 digit

Barcode sheet counter | 1->N |

22222 01 0 0 ⎤
22222 02 0 0 ⎟ Subset 1: High Pile station
22222 03 0 0 ⎟
22222 04 0 1 ⎦

22222 05 1 0 ⎤ Subset 2: Drawer station

9. OMR SPECIFICATIONS

OMR = Optical Mark Recognition.

A little mark printed on the paper give the end of the sequence of feeding.

The OMR sensors are installed in standard in all PSF. It is not an option.

9.1 Locations of the OMR sensors in the PSF
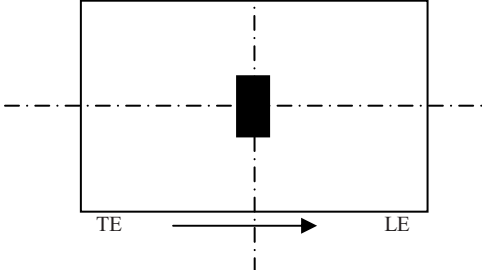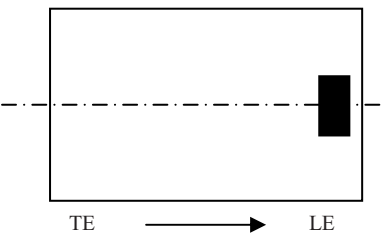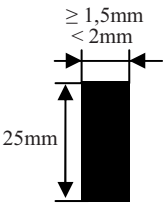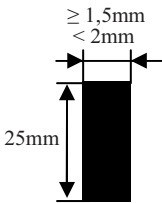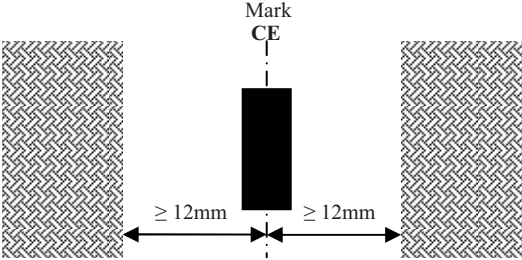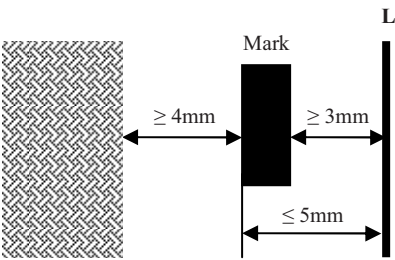
2 OMR sensors are placed in the PSF: **1** for the Drawer and **1** for the High Pile station.

The sensors are located on the lower face of the paper path. So, the mark MUST BE printed **FACE DOWN** on the sheet.

Drawer OMR Sensor

High Pile OMR Sensor
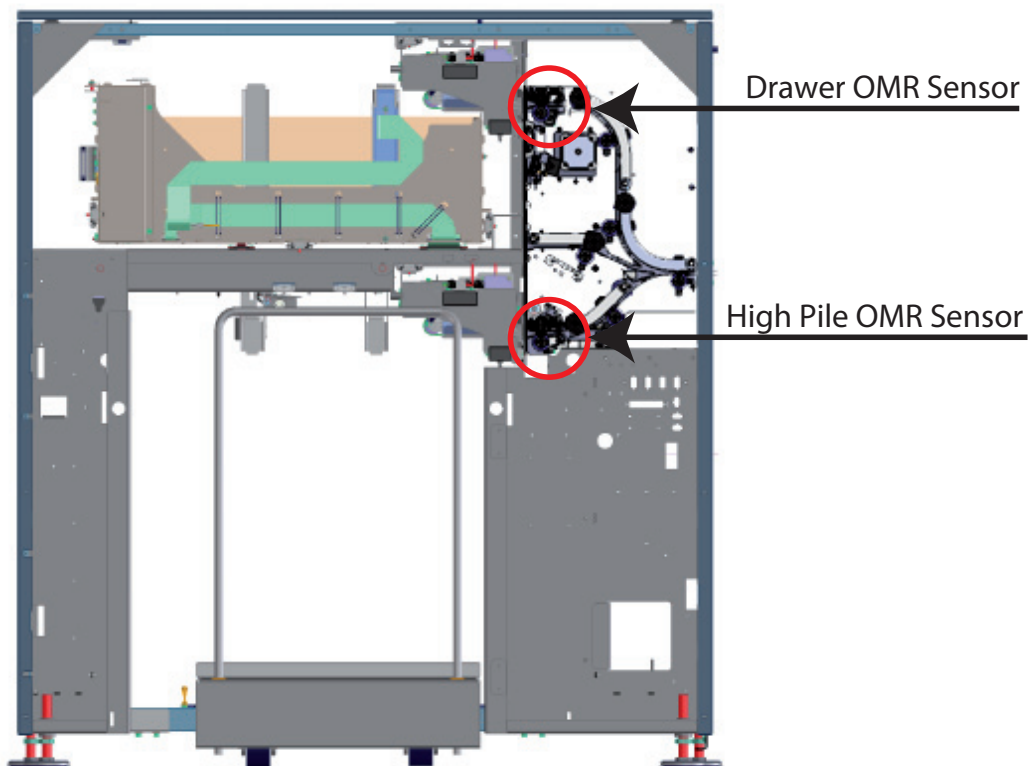
9.2 Locations of mark on the paper

2 positions of the mark are possible: - Center (CE).
- At the lead edge (LE).

	CE	LE
	TE → LE	TE → LE
Mark dimensions	≥ 1,5mm < 2mm 25mm	≥ 1,5mm < 2mm 25mm
Mark position on sheet	Mark CE ≥ 12mm ≥ 12mm	LE Mark ≥ 4mm ≥ 3mm ≤ 5mm

Example: *with Center mark and Lead Edge mark :*

CENTER MARK

Blank area without text or picture or mark

FACE DOWN

FACE DOWN

FACE DOWN

FACE UP

180°

FACE DOWN

Paper direction

Center line

Center line

25 mm MIN

1,5 mm MIN

2 mm MAX

12 mm MIN

12 mm MIN

12 mm MIN

FACE DOWN

POWERSQUARE SHEET **FEEDER**

LEAD EDGE MARK

FACE DOWN

FACE DOWN

FACE DOWN

Blank area without text or picture or mark

FACE UP

180°

FACE DOWN

1,5 mm MIN
2 mm MAX

25 mm MIN

3 mm MIN

MAX
5mm

4 mm MIN

Centered line

POWERSQUARE SHEET FEEDER

9.3 OMR applications

The PSF is able to use the OMR mark to check the integrity. The mark give the end of the sequence of feeding.

There are **2** OMR sensors (**1** for the Drawer and **1** for the High Pile station). The PSF can check the integrity separately in the **2** stations. Here are some examples:

- High Pile (OMR).

- High Pile (OMR) + Drawer (Manual – **1** sheet)

- Drawer (OMR).

- …

In the first example, the PSF will give the end of set when the PSF see the mark in the High Pile.

In the **2**nd example, the PSF feed sheets from the High Pile until the mark, and will feed after **1** cover from the Drawer.

In the **3**rd example, the PSF will give the end of set when the PSF see the mark in the Drawer.

9.4 OMR Calibration definition

OMR Calibration is a printed sheet with **2** contrast areas used to detect the marks;
The detection contrast area and the background contrast area.

The sheet itself can be used as background contrast area.

A printed mark read on sheet gives to the PSF the end of paper feeding sequence.
A calibration should be done to define the mark contrast according to the paper background color.
The PSF is factory set for a black mark on a white background sheet.
It is therefore possible to calibrate the sensor for a black mark on grey or yellow background (for example).

9.4.1 OMR Calibration sheet

The calibration sheet 9134156 (supplied with the machine) can be used as calibration sheet.
The calibration sheet can be printed with the following parameters :
- Contrast areas in centered position.
- Intrack and crosstrack dimension of the contrast area.
- Uniformity of the contrast area and sharpness lines.

Calibration sheet

≤ 50mm   10mm   ≤ 50mm

Crosstrack middle line

≥ 50 mm

These contrast areas and the background of the mark to detect must be the same colour and very regular.

Intrack middle line

This contrast area and the mark to detect must be the same colour and very regular.
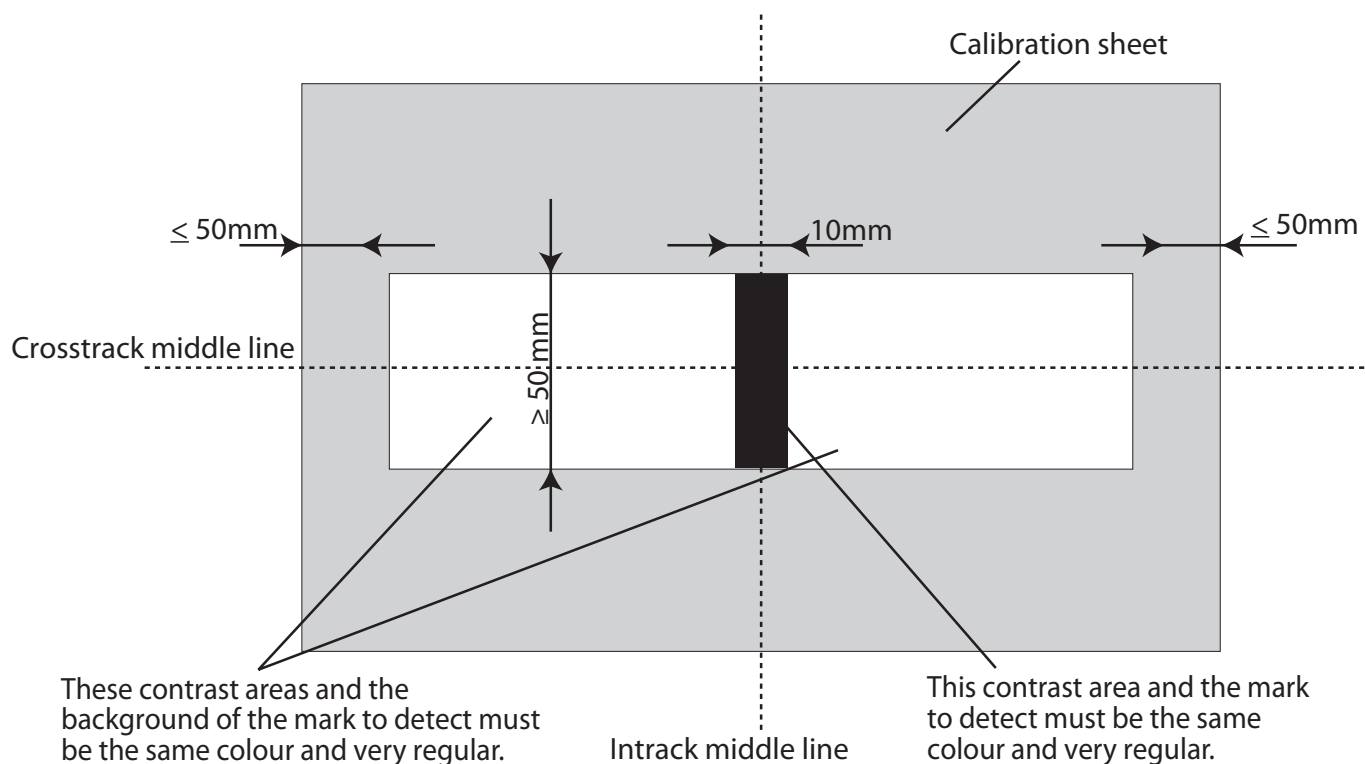
9.4.2 OMR Calibration Procedure

The OMR sensors are factory set for a black mark on a white background sheet.

However, if the contrast is different (for example, a black mark on a grey background), the operator can calibrate the OMR sensors.

- Put "OMR calibration sheet" in the High Pile and the Drawer station (with the OMR Mark FACE DOWN).

- Validate the paper size setup in the PSF menu.

- Press on the "OMR Calibration" button and validate your choice by pressing OK.
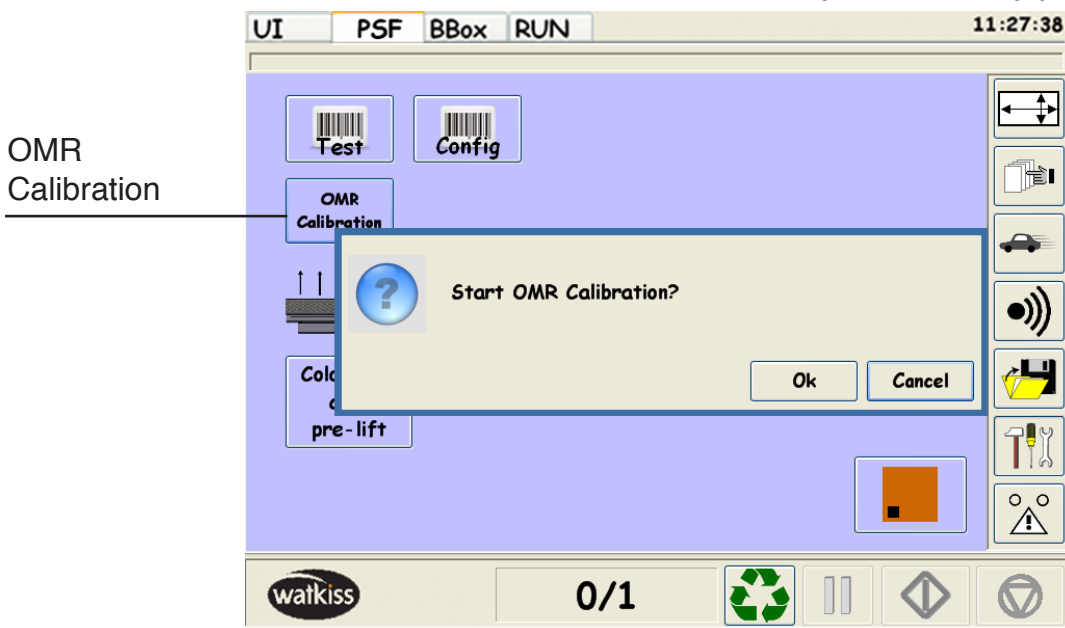
- Select the sensor to calibrate (Drawer or High Pile) and validate your choice by pressing ✓.
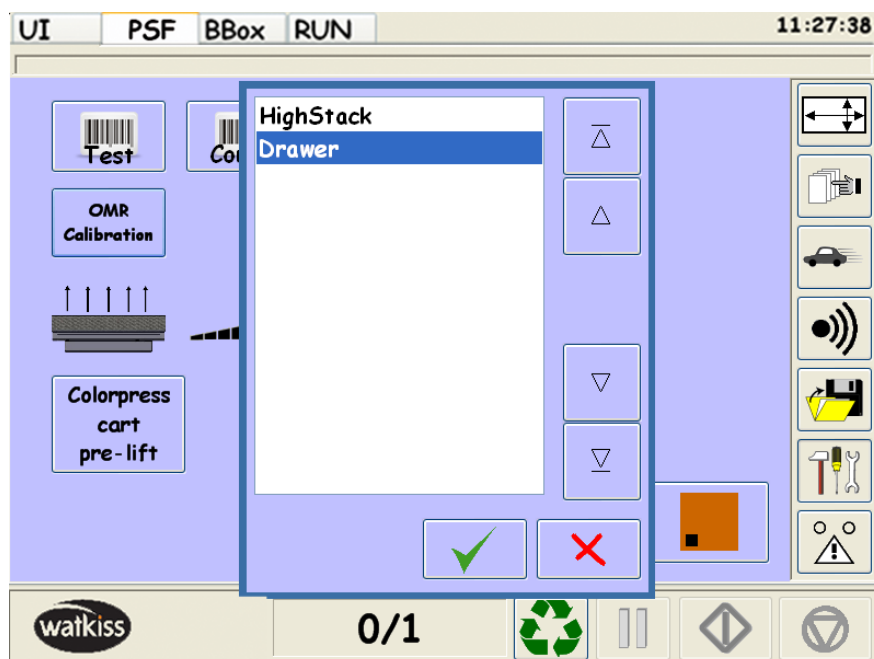
- The PSF will feed 1 sheet from the Drawer and will read the contrast printed on the paper to calibrate the sensor. A message appears on the GUI to prevent the operator that the calibration is "successful" or "failed".

POWERSQUARE SHEET **FEEDER**

When the dolly stands front of the finishing line, the operator will have to pick the banner sheet on the top of the stack.

Scan the barcode on the banner sheet.

Throw away the banner sheet.

Plug into the PSF the cart, wait for the setting up of the finisher accordingly with the job ID extracted in the barcode.
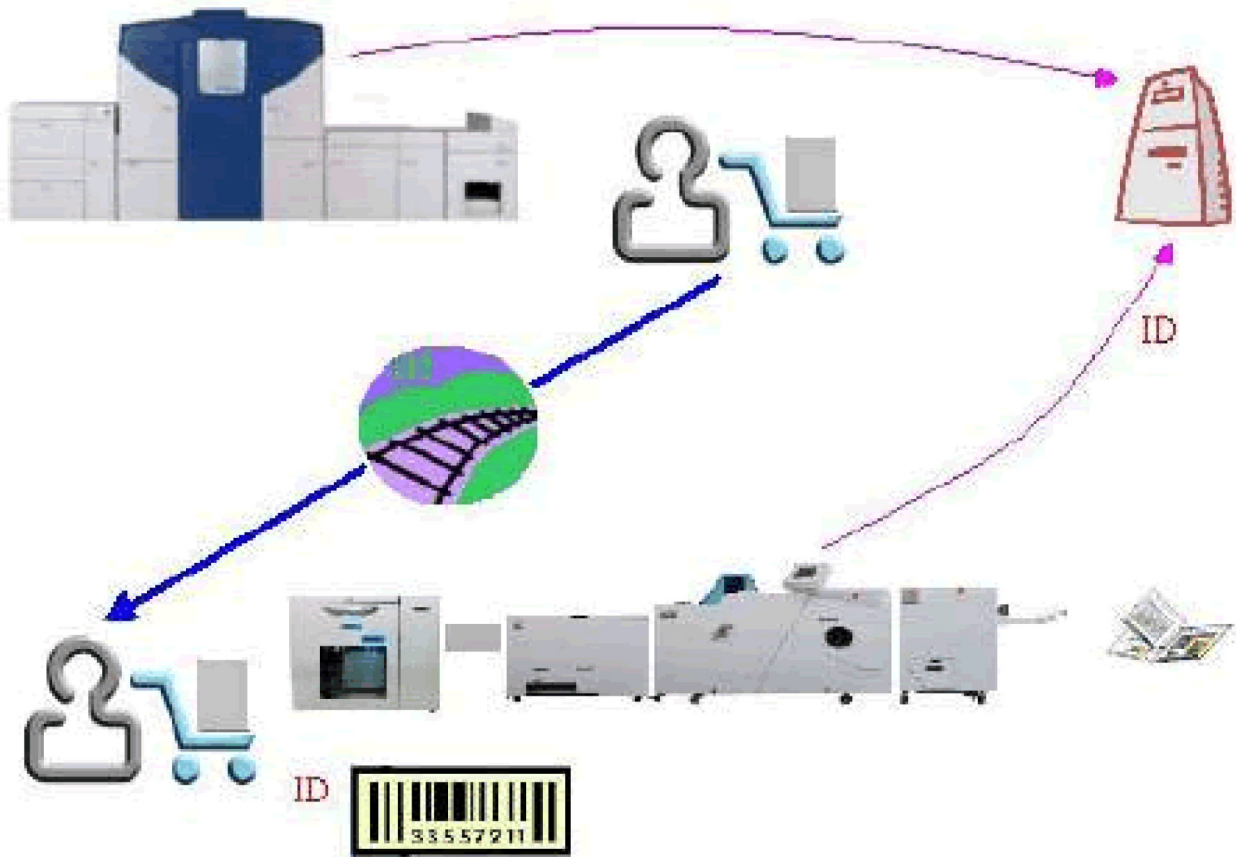
Start the PSF then produce professional booklets.
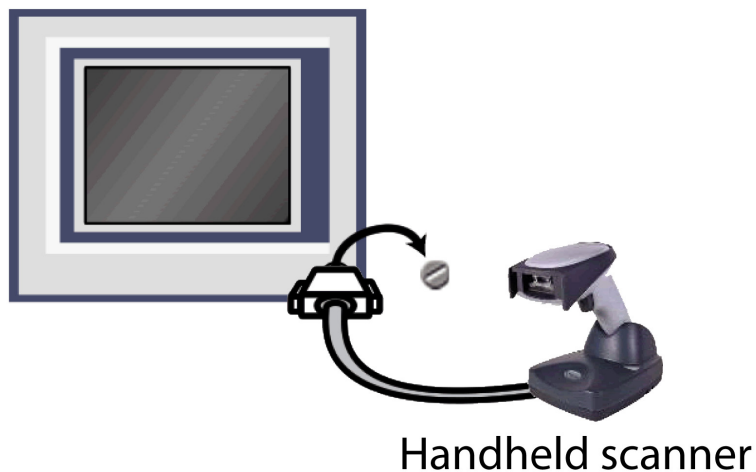
Handheld scanner

10.1 Handheld scanner operation

If the Handheld scanner beeps **3** times when scanning a barcode, the link has not been established. If the Handheld scanner beeps once, the link has been established.

The green LED on the base flashes to indicate the Handheld scanner's battery is charging.

10.1.1 Beeper and LED sequences and meaning

The Handheld scanner contains LEDs on the top of the Base to indicate its power up, communication, and battery status. Simply stated, red LED=error and green LED=success of any type. The audible indicators of the unit have meaning as well: **3** beeps=error, **2** beeps=menu change, **1** beep=all other successes.

The table below lists the indication and cause of the LED illumination and beeps for the Handheld scanner.

LED Indication	Beeper Indication	Cause
Normal Operation		
Red Flash	None	Battery low
Green Flash	**1** beep	Successful communication or linking
Red, blinking	**3** beeps	Failed communication
Menu Operation		
Green Flash	**2** beeps	Successful menu change
Red, blinking	**3** beeps	Unsuccessful menu change

Handheld Scanner LED Sequences and Meaning

10.1.2 Override Locked Handheld scanner

If you need to replace a broken or lost Handheld scanner that is linked to a base, scan the Override Locked Handheld scanner barcode with a new Handheld scanner, and place that Handheld scanner in the base. The locked link will be overridden; the broken or lost Handheld scanner's link with the base will be removed, and the new Handheld scanner will be linked.

Override Locked Imager

Initial issue: 05/11
Latest revision: 03/13

POWERSQUARE SHEET FEEDER

10.1.3 Unlinking the Handheld scanner

If the base has an Handheld scanner linked to it, that Handheld scanner must be unlinked before a new Handheld scanner can be linked. Once the previous Handheld scanner is unlinked, it will no longer communicate with the base. Scan the Unlink Handheld scanner barcode to unlink an Handheld scanner.

Unlink Imager

10.2 Use of Handheld Scanner

When a barcode is scanned, the following screen appears.
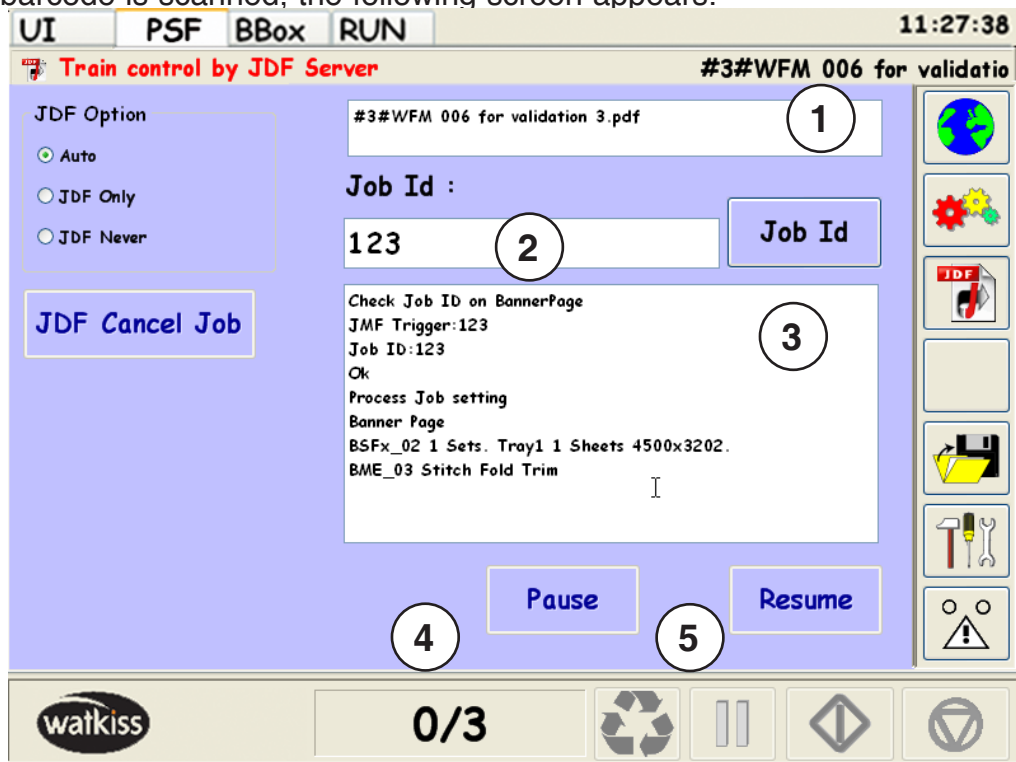
The value read by the HandHeld scanner may be given several meaning.

FFC may use this value as a Job ID.

Bourg may use this value as a Job stored in the GUI or a reference to a Job stored in the GUI

(**1**) This area displays the name of the JDF Job Name.

(**2**) *"Job ID"* button: allows entering the barcode ID manually through a virtual keyboard.

(**3**) This area displays the reading of the barcode scanned on the banner sheet.

(**4**) *"Pause"* button : Saves in a *"PausedJDFJobFile"* file the setup of the train.
Save the counters (set - preset) per JDF job saved.

(**5**) *"Resume"* button: will load the *"PausedJDFJobFile"* file and make the machine train setup. Operator will have to restart the Job. Or will allow the operator to choose in the JDF saved list (max **50** JDF job saved).

There are 3 options available depending Id created.

- FFC
- GUI File
- GUI JobID

The GUI/WFM will have to forward the value read by the handheld scanner to either the GUI or FFC.

The third button on the right side of the GUI will show a HandHeld scanner when the value is forwarded to the GUI.
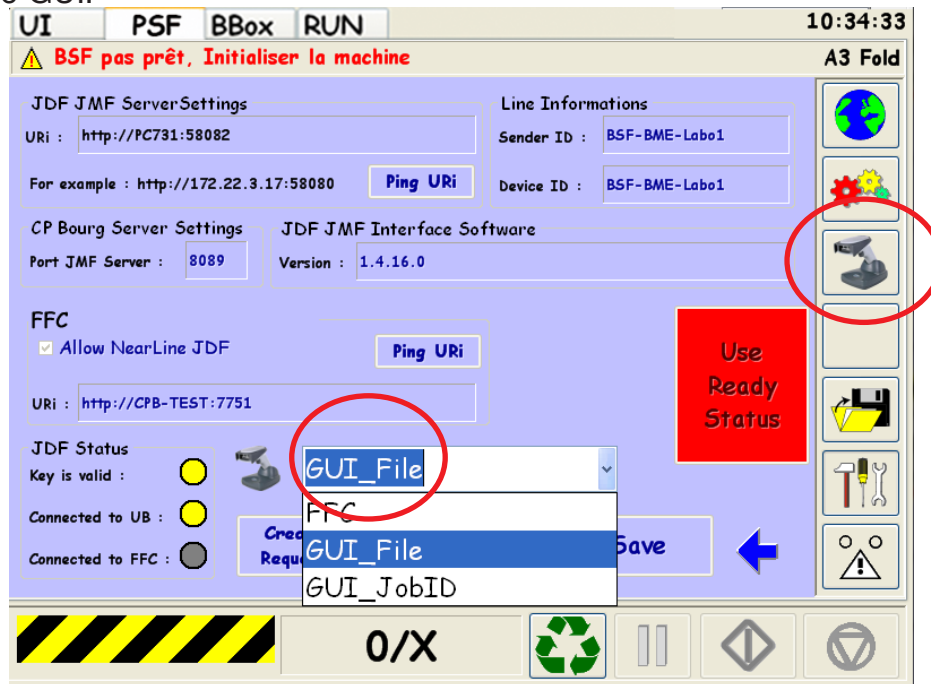
Otherwise, this button will show a JDF logo when FFC controls the GUI/HandHeld scanner. (JDF must be connected)
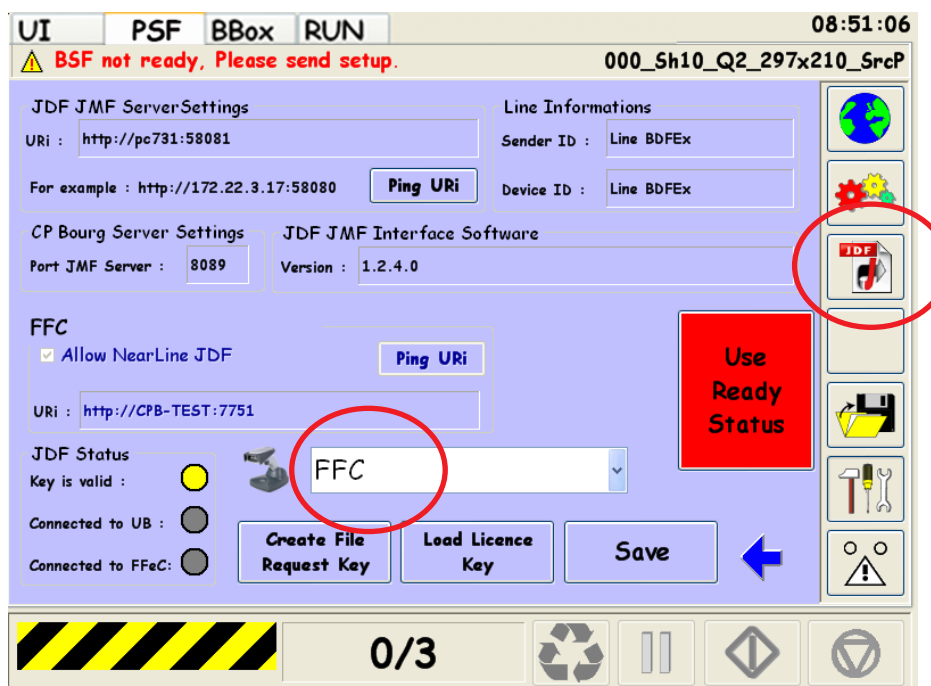
Scan the barcode with the HandHeld scanner

Wait a few seconds, the finishing line is setting up.
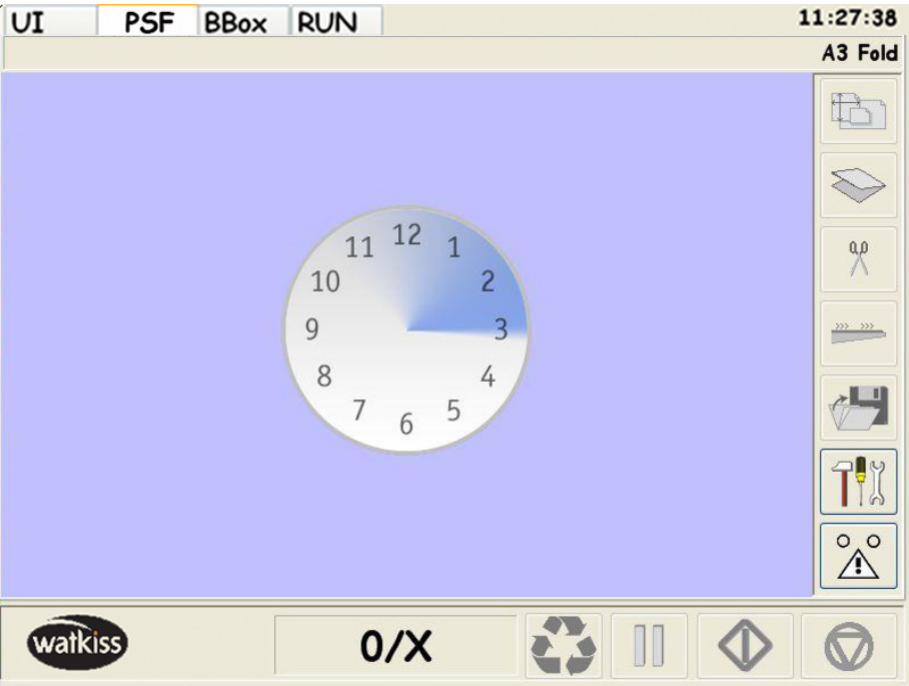
When setting is complete, press the start button to process the job.

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POWERSQUARE SHEET FEEDER
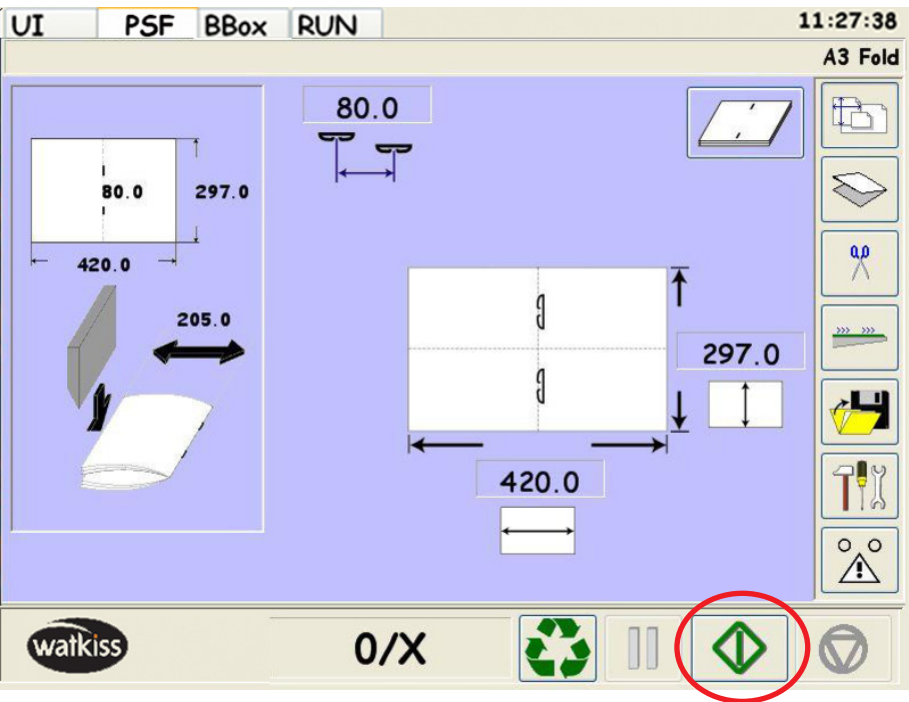
10.3 Job accounting

Job accounting in the finishing line is a way to have a glance on what has been done on the finishing line.

It records all jobs processed by the finishing line in files.

10.3.1 Setting up the accounting

Press **"Open/Save"** button

Then select **"Log button"**
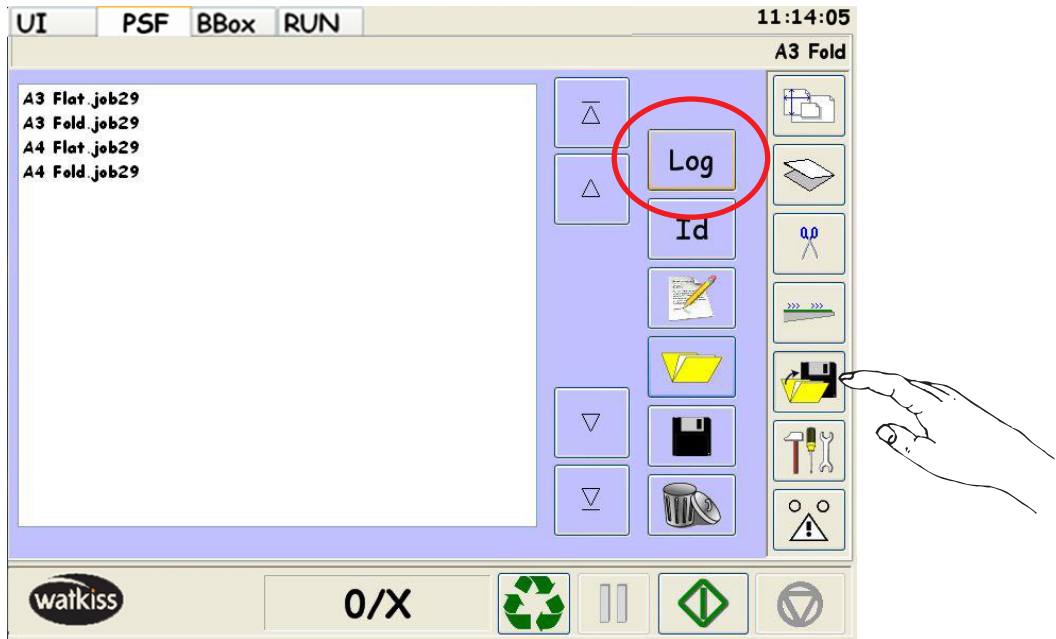
In the scroll list, choose either a network or a local disk.

POWERSQUARE SHEET FEEDER
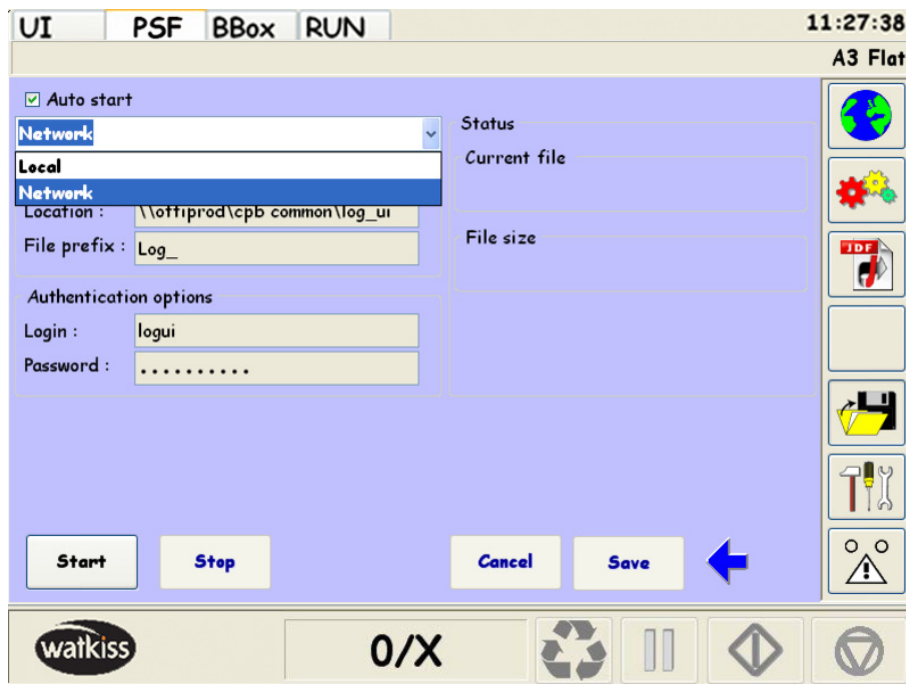
10.3.2 Accounting on a Network Drive

Fill in the blanks.

For a network disk, you may provide a user/password for access grant.

Set the location with a fully qualified host and directory.

Location parameter is formatted like:

\\YourHostName\fooDirectory

Set the file prefix. This will help sorting the files afterward.

When the fields are completed, press on **"save"** button.

10.3.3 Accounting on a local drive

On local disk, accounting file will be stored while job are being processed.

In the scroll list select Local then press on *"save"* button.

> Note: You have to flush from time to time the accounting files locally stored on the GUI or the oldest files might be overwritten.
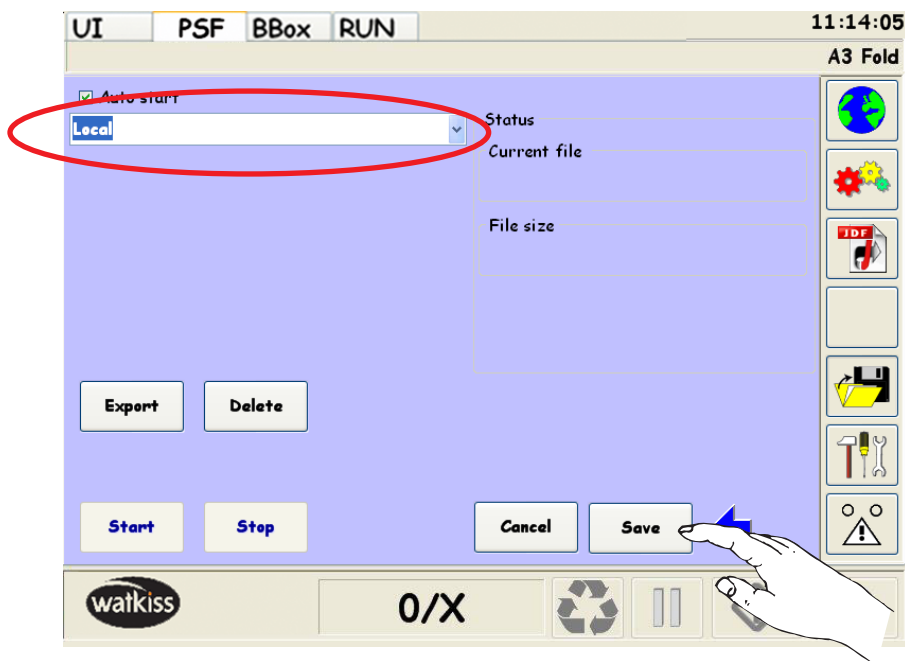
10.3.4 Exporting accounting file from GUI to a USB key
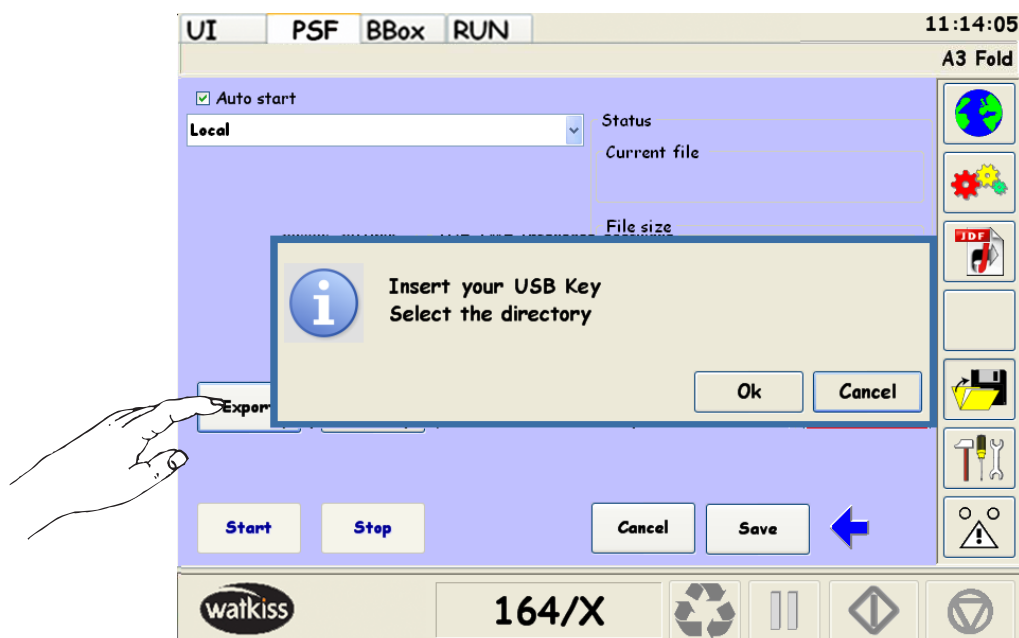
Insert a USB Key on the GUI and press OK

Press the *"Export"* button.

Select the target directory on the USB Key and validate
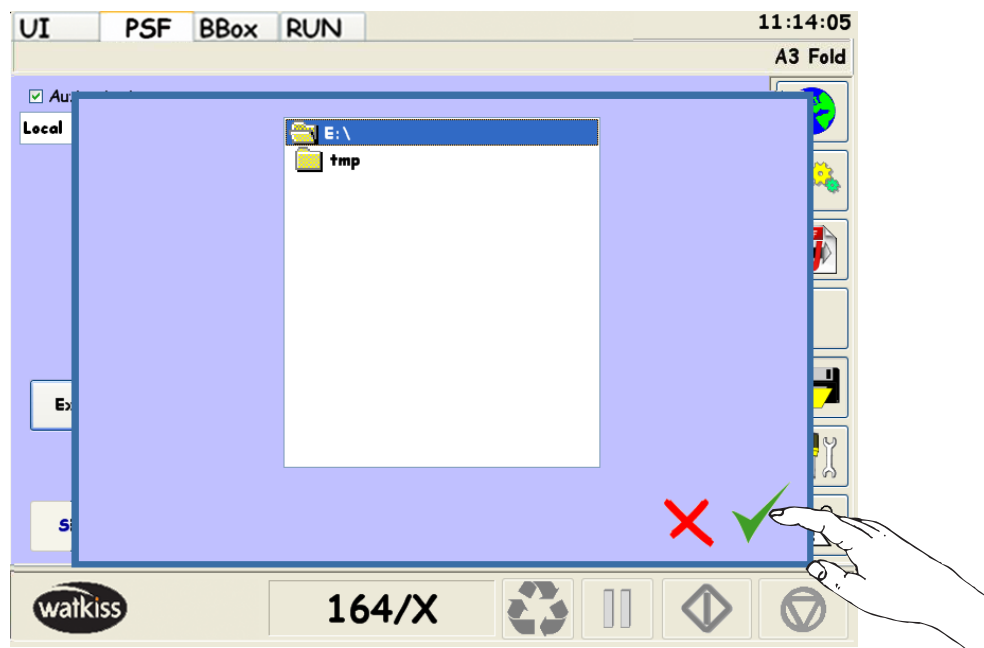
Wait awhile, files are being exported.

Press OK

POWERSQUARE SHEET FEEDER
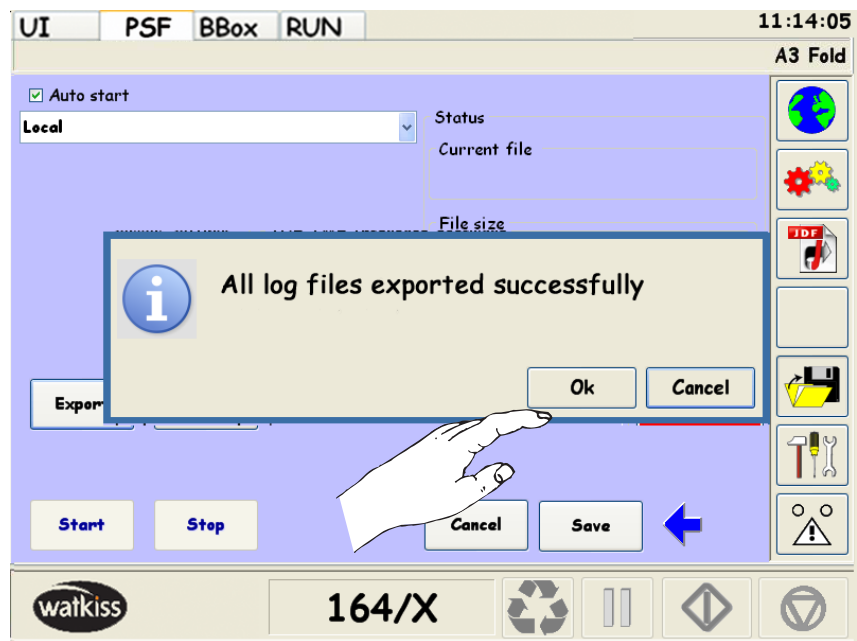
10.3.5 Flushing Accounting files

From time to time you'll have to flush the accounting directory on the GUI.

ATTENTION: *Be aware to export files before flushing.*

Click on the *"Delete"* button.

Confirm by pressing ok
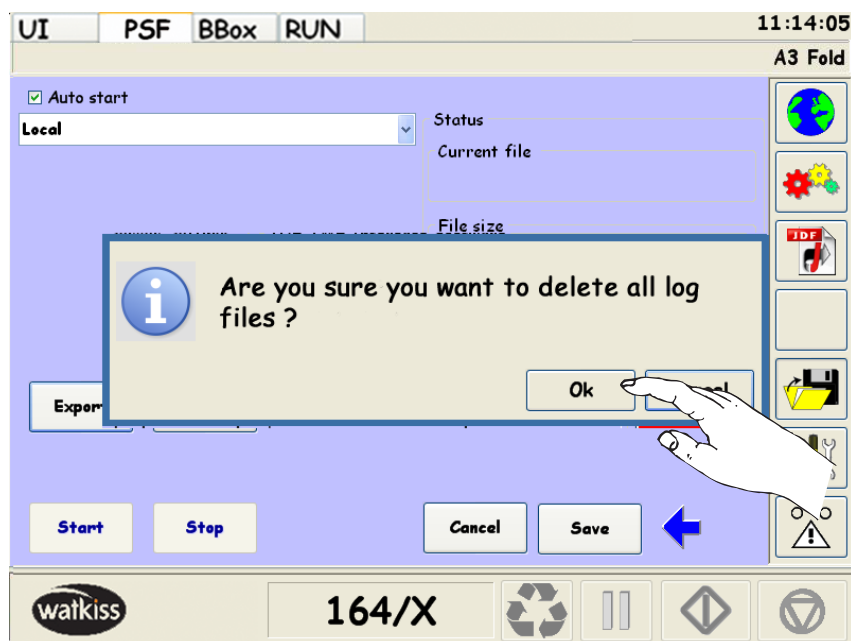
Press OK
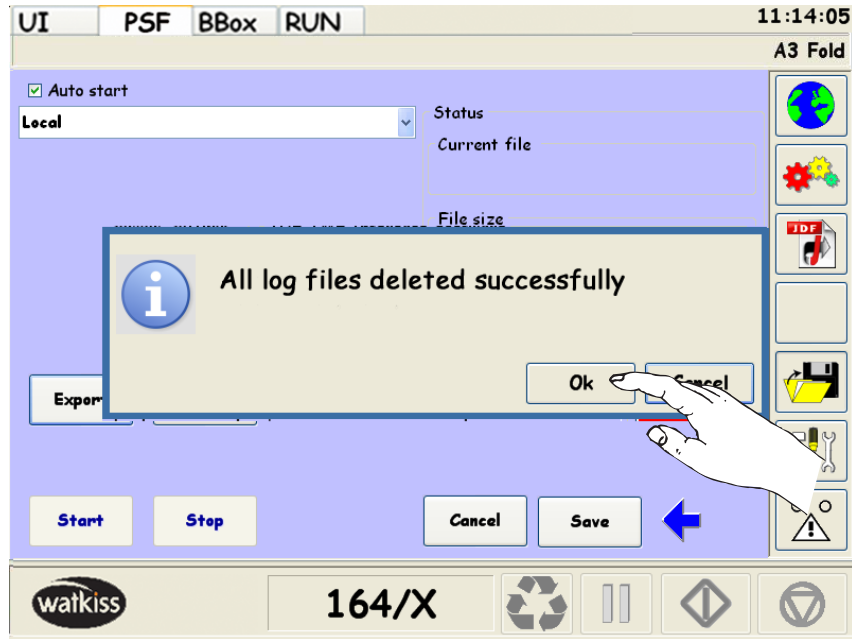
10.3.6 Apply new setup

Check the **"AutoStart"** tick box to automatically start the accounting recording on startup.

Click **"save"** to validate the setting.

Click **"Start" or "Stop"** to start or stop the accounting files recording.
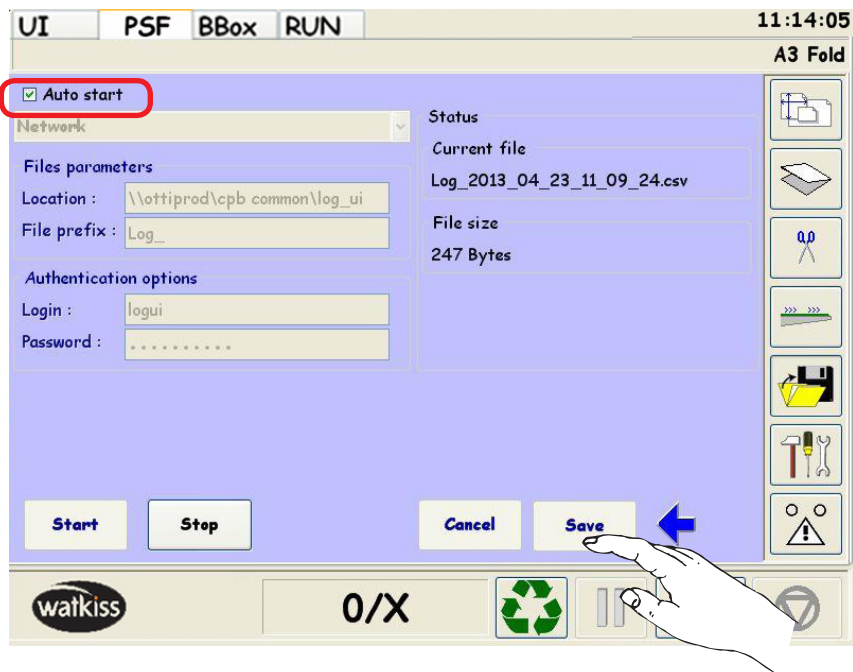
10.4 Troubleshooting

10.4.1 Troubleshooting the Base

If the Base is not functioning properly, review the following troubleshooting to try to isolate the problem.

- Is the red LED ON?
  If the red LED is not illuminated, check that:
  The power cord is connected properly and there is power at the power source.

- Is the green LED ON?
  If the green LED is not illuminated, check that:
  The Handheld Scanner is correctly placed on the Base.
  The battery is not bad or deeply discharged. In some cases, the battery of the Handheld Scanner may trickle charge to bring it into an acceptable level and the transition to a normal charge cycle.

10.4.2 Troubleshooting the Handheld Scanner

Note: Make sure that the battery of the Handheld Scanner is charged.

- Is the JDF icon appears on U.I?
  If not call for technical assistance. JDF is not installed or valid.

- Is the message 'Handheld Scanner port open: **"COM4"** appears?
  If not call for technical assistance. Handheld Scanner driver must be installed.

- Is the Handheld Scanner having trouble reading your barecode?
  If the Handheld Scanner is not reading barecode well, check that the barecode is not smeared, rough, scratched…

- Does the Handheld Scanner read the barcode incorrectly?

Proceed to the following test.

To access on this screen, refer to chapter *"Fine tuning and troubleshooting"* in the installation procedure.

"Test" tab.

Ensure that the *"COM"* port find by Windows corresponding to the good reference *"COM4 Honeywell International Inc"*.
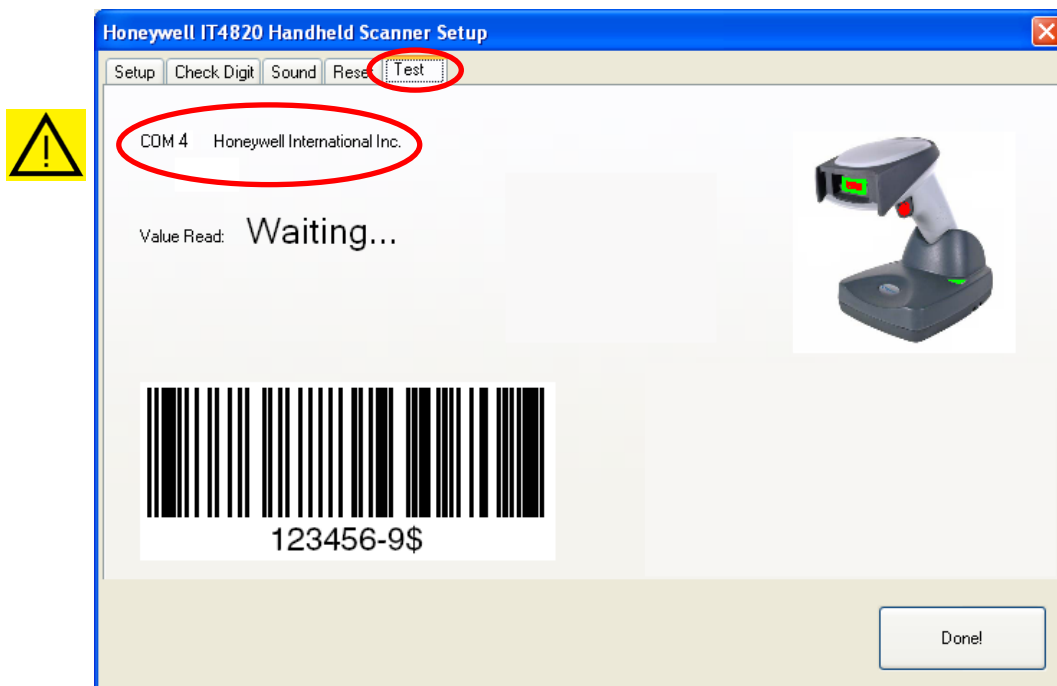
Scan the barcode *"123456-9$",* it must appears on *"Value Read:"*
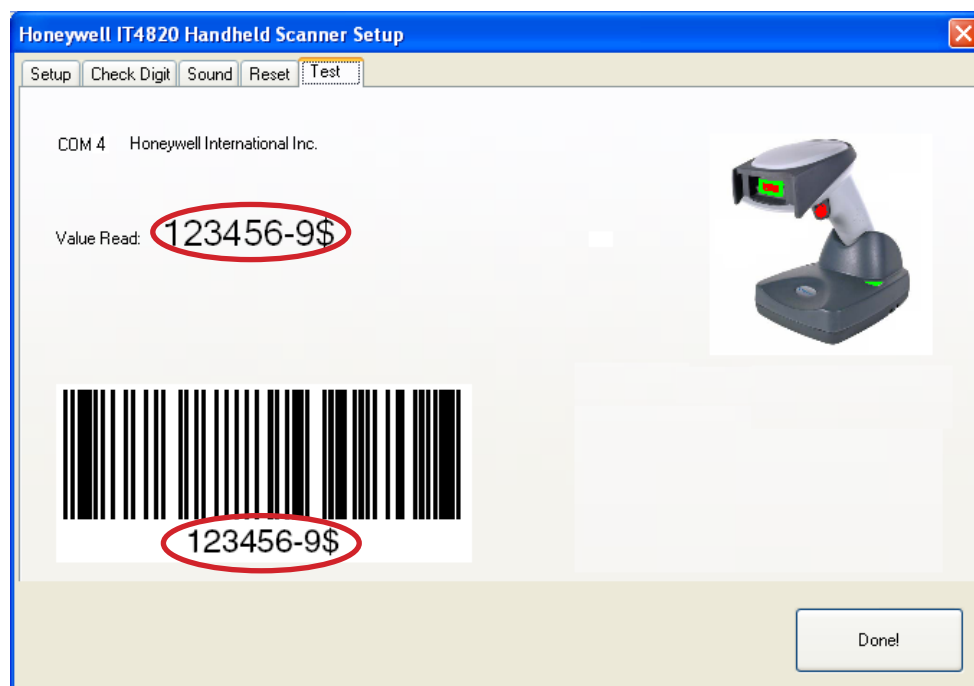
If the Handheld Scanner does not read the barcode **"TEST"**.

Try to read the following barecodes.
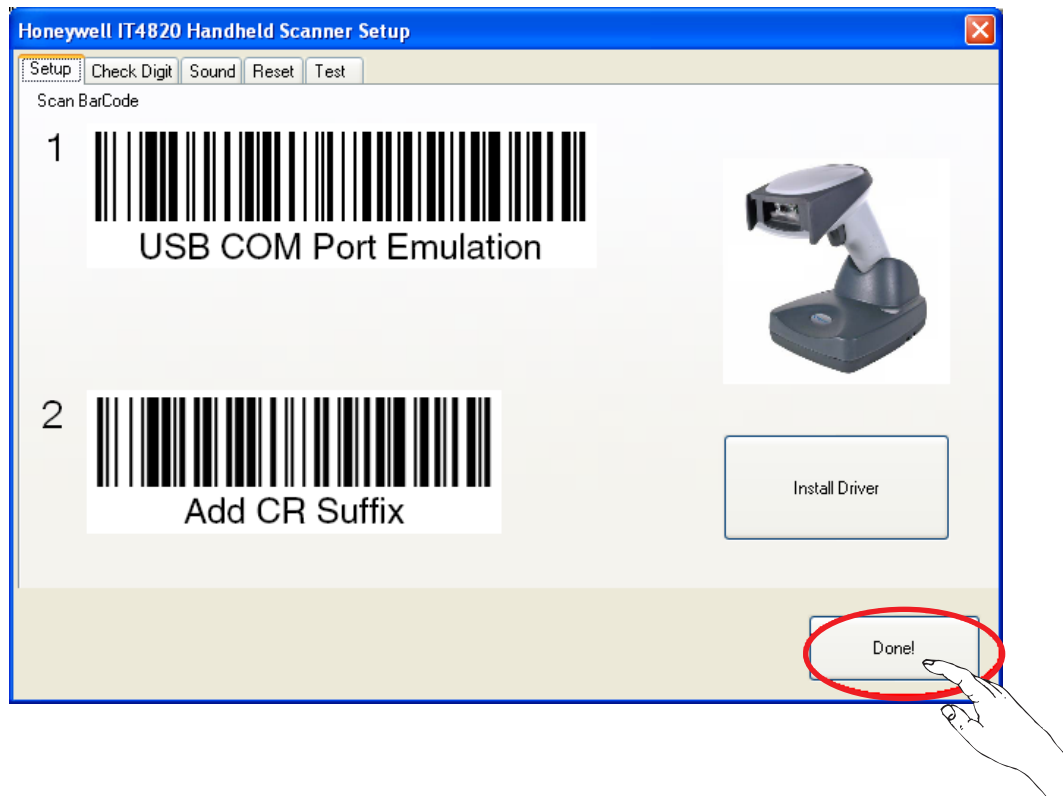
Press **"Done"**.

When the driver is installed, the GUI reboot.

Otherwise, click on the GUI tab.

If does not success. Call for technical assistance.

- The Handheld Scanner battery is charged (LED ON on base), the bright green beam appears when you pull the trigger but the Handheld Scanner does not read barecode.
  Call for technical assistance to 'check digit' configuration.

- The Handheld Scanner battery is charged (LED ON on base) but the bright green beam does not appear when you pull the trigger.
  Replace the Handheld Scanner.

Weekly :

Do a complete cleaning of the machine. Clean all mirrors of barcode readers.

If barcode readers are installed, clean the mirror and the window of the barcode assembly.

Clean the window of the Handheld Scanner with a soft cloth.

12. ENVIRONMENTAL COMPLIANCE

12.1 Product Recycling and Disposal

ENGLISH:

Application of this symbol on your equipment is confirmation that you must dispose of this equipment in compliance with agreed national Procedures.
In accordance with European legislation dealing with "end of life electrical and electronic equipment", equipment subject to disposal must be managed within agreed procedures.
Prior to disposal please contact your local representative for end of life take back information.

FRANÇAIS:

La présence de ce symbole sur cet équipement indique que ce dernier doit être mis au rebut selon les conventions nationales.
Conformément à la législation européenne, tout équipement électrique et électronique en fin de vie et destiné au rebut doit être manipulé selon les procédures convenues.
Veuillez contacter votre distributeur pour en savoir plus sur la reprise du matériel avant toute mise au rebut.

ESPAÑOL:

La aplicación de este símbolo en el equipo es una confirmación de que en el momento de deshacerse de este equipo debe de hacerlo de acuerdo con los procedimientos nacionales acordados.
La legislación europea exige que para deshacerse de equipos eléctricos y electrónicos al final de su duración útil deben seguirse los procedimientos acordados.
Antes de deshacerse de un equipo póngase en contacto con su distribuidor local o con el representante para obtener información sobre su devolución.

DEUTSCH:

Geräte die dieses Symbol tragen, müssen den nationalen Richtlinien gemäß entsorgt werden.
Den europäischen Bestimmungen zum Umgang mit elektrischen und elektronischen Altgeräten ist Folge zu leisten.
Bei der Entsorgung des Geräts den Partner kontak-tieren.

ITALIANO:

Questo simbolo applicato sulla macchina indica la necessità di smaltire il prodotto in conformità con le normative nazionali vigenti.
La legislazione europea richiede che lo smaltimento dei dispositivi elettrici ed elettronici a fine vita venga gestito in conformità con le normative vigenti.
Prima di smaltire il dispositivo, rivolgersi al rivenditore autorizzato di zona per informazioni sul ritiro dei prodotti a fine vita.

NEDERLANDS:

De aanwezigheid van dit symbool op uw apparatuur geeft aan dat u zich van deze apparatuur moet ontdoen overeenkomstig de daarvoor in het betreffende land geldende procedures.
Krachtens de Europese wetgeving moet de verwerking van afval van gebruikte elektrische en elektronische apparatuur geschieden overeenkomstig de daarvoor geldende procedures.
Neem voordat u de apparatuur wegdoet contact op met uw plaatselijke dealer of vertegenwoordiger voor informatie over inzameling.

PORTUGUÊS:

A utilização deste símbolo no nosso equipamento confirma que deverá eliminar este equipamento de acordo com os procedimentos adequados do seu país.
De acordo com a legislação Europeia, o fim de vida de equipamento eléctrico e electrónico sujeito a eliminação, deverá ser realizado de acordo com procedimentos acordados.
Antes da eliminação, contacte o seu revendedor local para obter mais informação.

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Initial issue: 05/11
Latest revision: 03/13

POWERSQUARE SHEET FEEDER

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