

## Option – J0487

# SMALL ROLL W / CENTR.+ PLAITED HU1800

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## Operation Manual

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## Introduction

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Thank you for purchasing the “SMALL ROLL W / CENTR. + PLAITED HU1800” option for the ML Tiger-1800B series color inkjet printer.

PLAITED HU1800 is an option for the ML Tiger-1800B series that allows the folded fabric media to be set on the printer main unit.

By using the included SMALL ROLL W / CENTR. , it is also possible to use a roll media.

## Caution

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### DISCLAIMER OF WARRANTY

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IN NO EVENT SHALL MIMAKI BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR LOSS OF PROFITS OF DEALER OR CUSTOMERS OF ANY PRODUCT.

### On this operation manual

- This manual describes the operation and maintenance of “SMALL ROLL W / CENTR. + PLAITED” (hereinafter referred to as this option).
- Read and fully understand this operation manual before using this option. It is also necessary to keep this operation manual on hand.
- Make arrangement to deliver this operation manual to the person in charge of the operation of this option.
- You can also download the latest manual from our website.

### Attention

- Although this operation manual has been carefully prepared for your easy understanding, please do not hesitate to contact your local distributor or our sales office if you have any inquiry.
- The contents of this operation manual are subject to change for improvement without notice.












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# Safety precautions

## Symbols

In this document, symbols are used for explaining the contents of cautions on operation. The symbol to be displayed differs depending on the caution content. Understand the meaning of each symbol and use this unit safely and correctly.

### Example of symbol

Description		
	Warning	Failure to observe the instructions given with this symbol can result in death or serious injuries to personnel. Be sure to read it carefully and use the printer properly.
	Caution	Failure to observe the instructions given with this symbol can result in minor or medium injuries to personnel.
	General Warning	This symbol indicates that the items shown need to be noted. Specific notes are drawn in the figure  .
	General Mandatory Action	This symbol indicates that the action shown must be executed. Specific instruction is drawn in the figure  .
	General Prohibition	This symbol indicates that the action shown is prohibited. Specific action that is prohibited is drawn in the figure  .
	Important	Contains important information you need to know when using this option. Use as a reference for operations.
	Hint	Useful information is given with this symbol. Use as a reference for operations.
	Reference	This symbol indicates the reference page for related contents. Click the text to display the corresponding page.

## Warning on use



### Warning



- The set of power cables provided with this option is for use with this option only, and cannot be used with other electrical devices. Do not use any power cables other than the ones provided with this option. Otherwise, it could cause a fire or electric shocks.
- Take care not to damage, break or work upon the power cable. If a heavy material is placed on the power cable, or if it is heated or pulled, the power cable can break, thus resulting in a fire or electric shocks.
- Avoid using in humid places. Also, do not splash water on this option. Otherwise, a fire, electric shocks, or product breakdown may result.
- Use of this option under an abnormal condition where it produces smoke or strange smell can result in a fire or electric shocks. If such an abnormality is found, be sure to turn Off the power switch immediately and unplug the cable from the wall outlet. Check first that this option no longer produces smoke, and then contact your distributor or our sales office for repair. Never repair this option by yourself, as it is dangerous.
- Never disassemble or modify this option. It could cause electric shocks or breakage.
- Do not use extension cables. Otherwise, it could cause a fire or electric shocks.
- Keep the power plug prong clear of any foreign object such as a piece of metal. Failure to do so may result in a fire or electric shocks.
- Do not plug too many leads into a single socket. Otherwise, it could cause a fire or electric shocks.
- If the power cable is damaged, exposed core wire, disconnection, etc., contact your service representative for replacement. If used as it is, it may cause a fire or electric shocks.
- Do not handle the power plug with wet hands. It could cause electric shocks.
- Grasp by holding the plug itself when removing the power plug from wall outlet, and never hold by the cable. Holding and pulling the cable may damage the cable, leading to a fire or electric shocks.
- Do not use this option with the voltage other than the indicated one. Otherwise, it could cause a fire or electric shocks.
- Do not use this option with the power frequency other than the indicated one. It could cause a fire or electrical shocks.
- Do not place your fingers or other parts of your body close to the dangerous moving parts.
- If a foreign object such as a small piece of metal or a liquid such as water gets inside this option, turn off this option. After that be sure to unplug the power plug from the outlet and consult your, service representative. If used as it is, it may cause a fire or electric shocks.



- Do not use the combustible spray or flammable solvent nearby or inside of this option. Otherwise, it could cause a fire or electric shocks.
- Do not put a vase, flowerpot, glass, cosmetics, medicine, container which water was in, or small metal thing in the top and near this option. When some spills over or enters inside of this option, it could cause a fire or electric shocks.

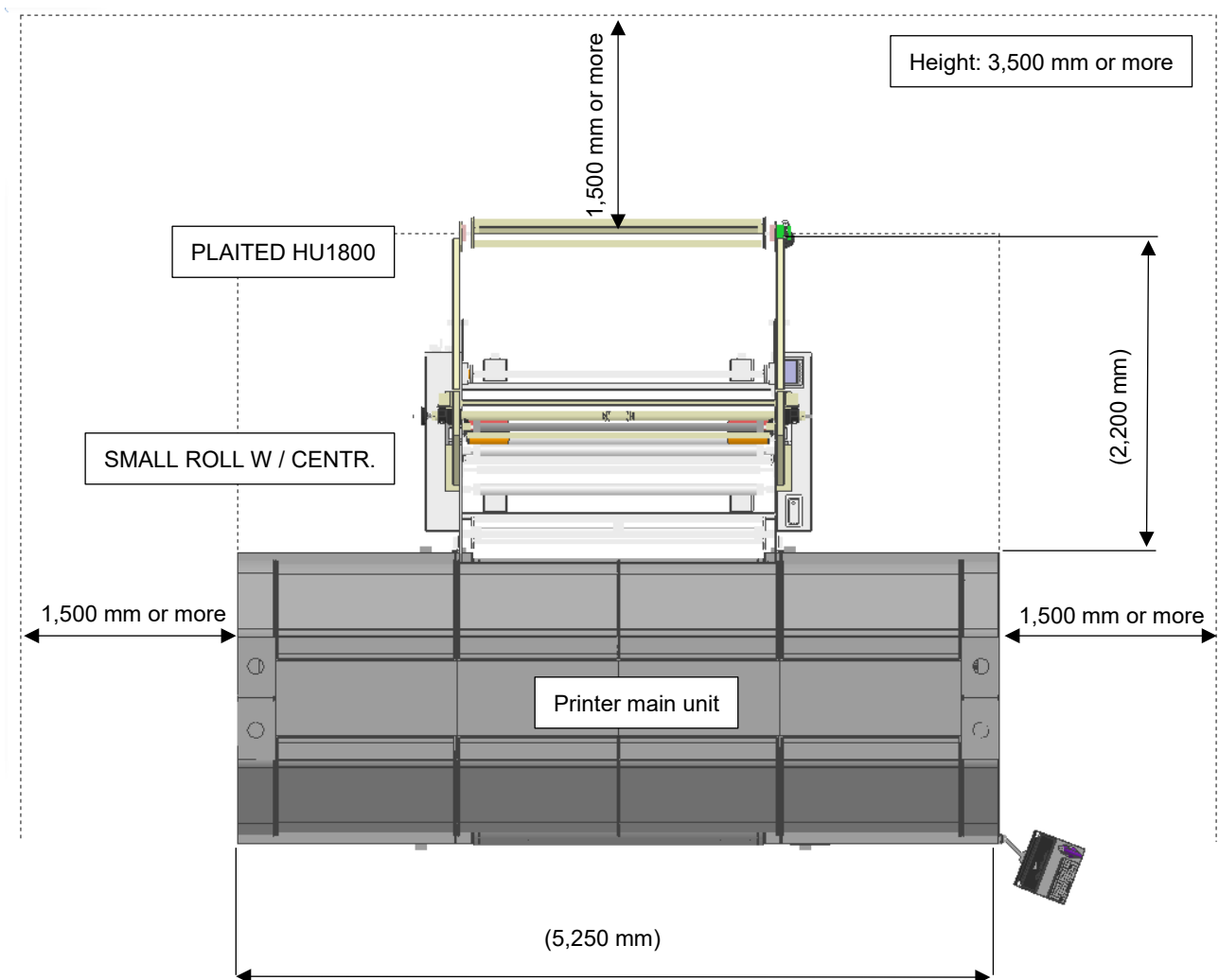
# Installation of this option

## Installation location

This option is a Tiger-specific option kit for the ML Tiger-1800B series (hereinafter referred to as the printer main unit) that enables use of folded fabric media.

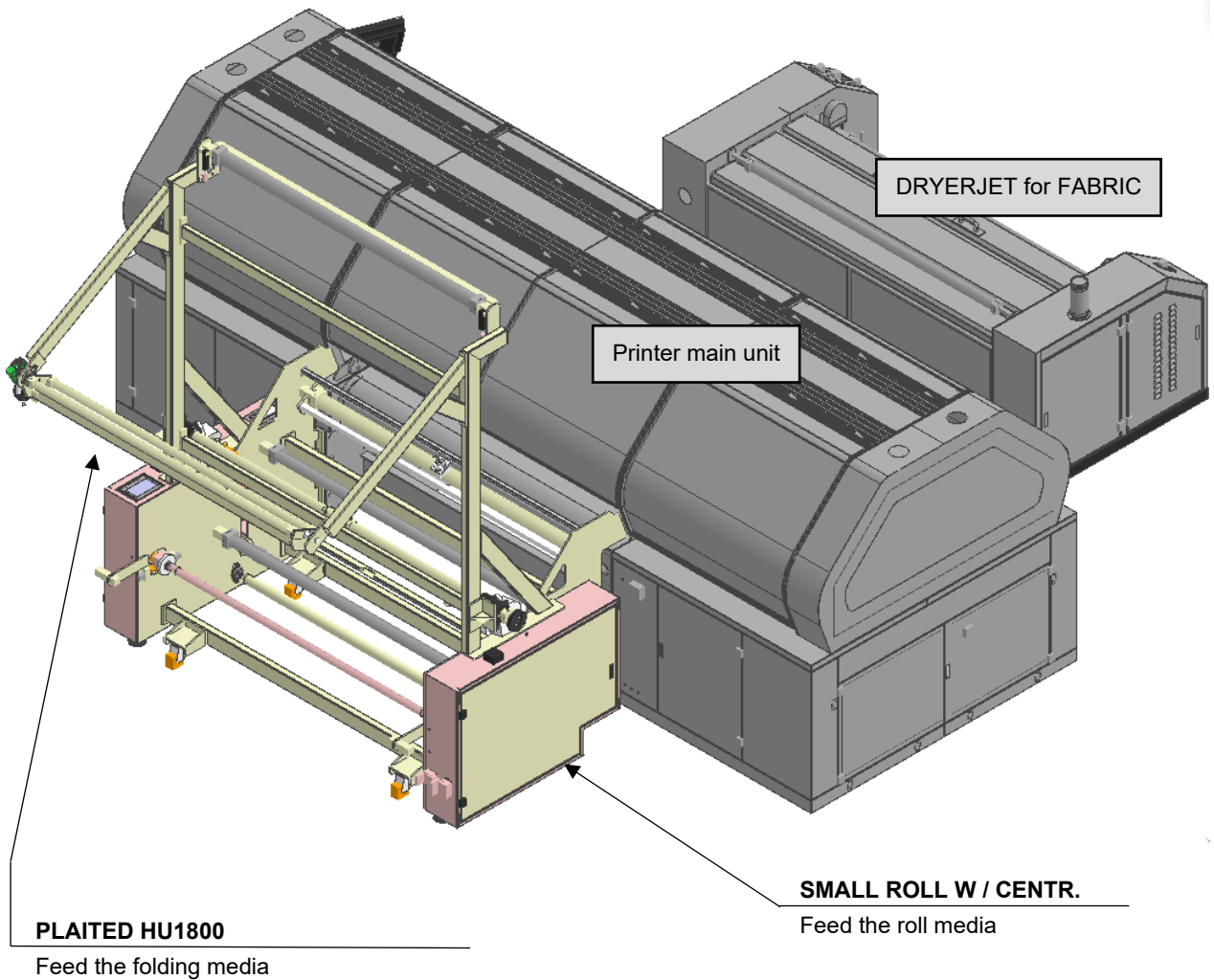
The space required when this option is mounted on the printer main unit is shown below.

Determine the installation location in consideration of the size when this option is mounted on the printer main unit and the space required for printing.



# Part name and function

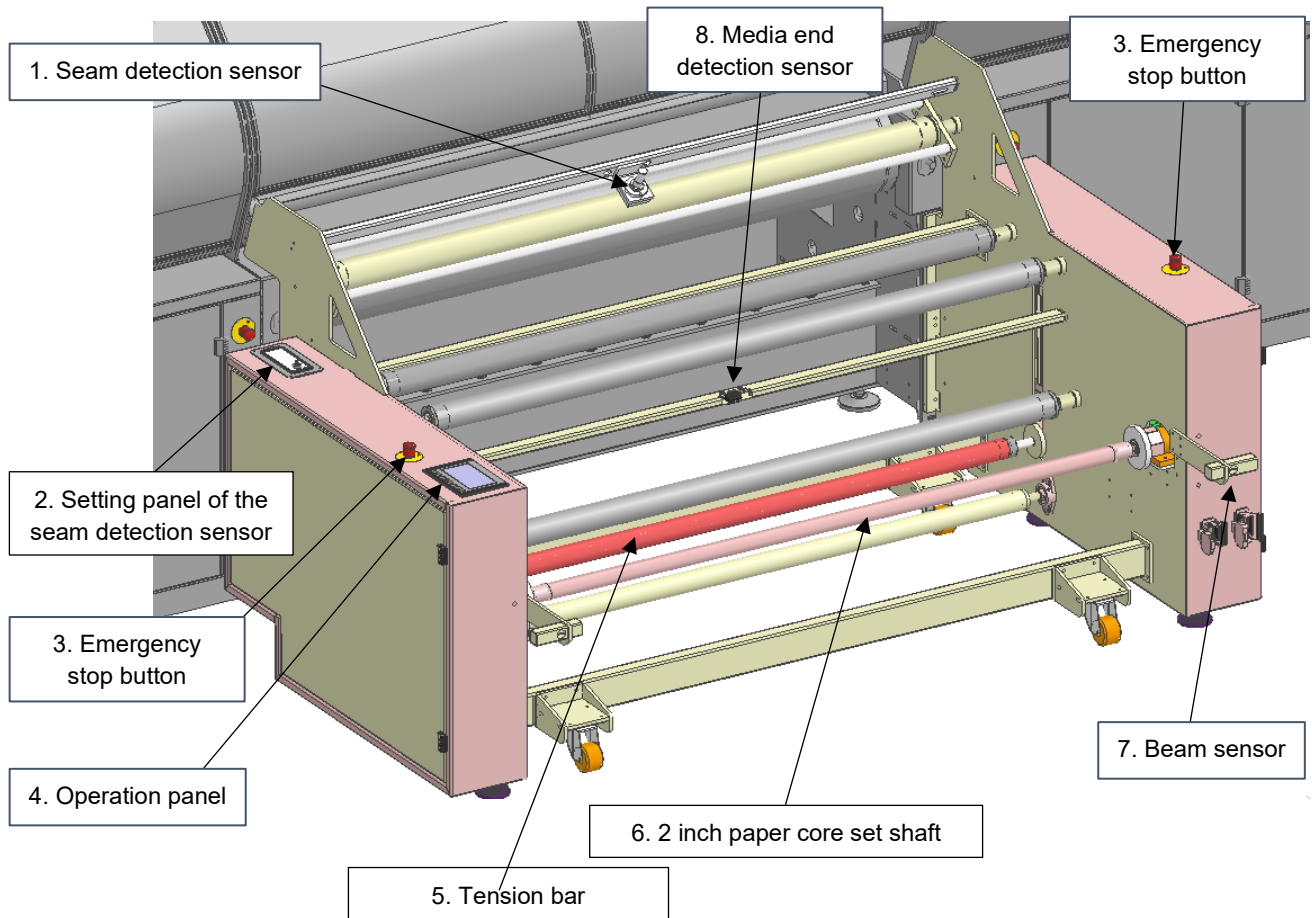
## Overall



The equipment included in this option is as follows.

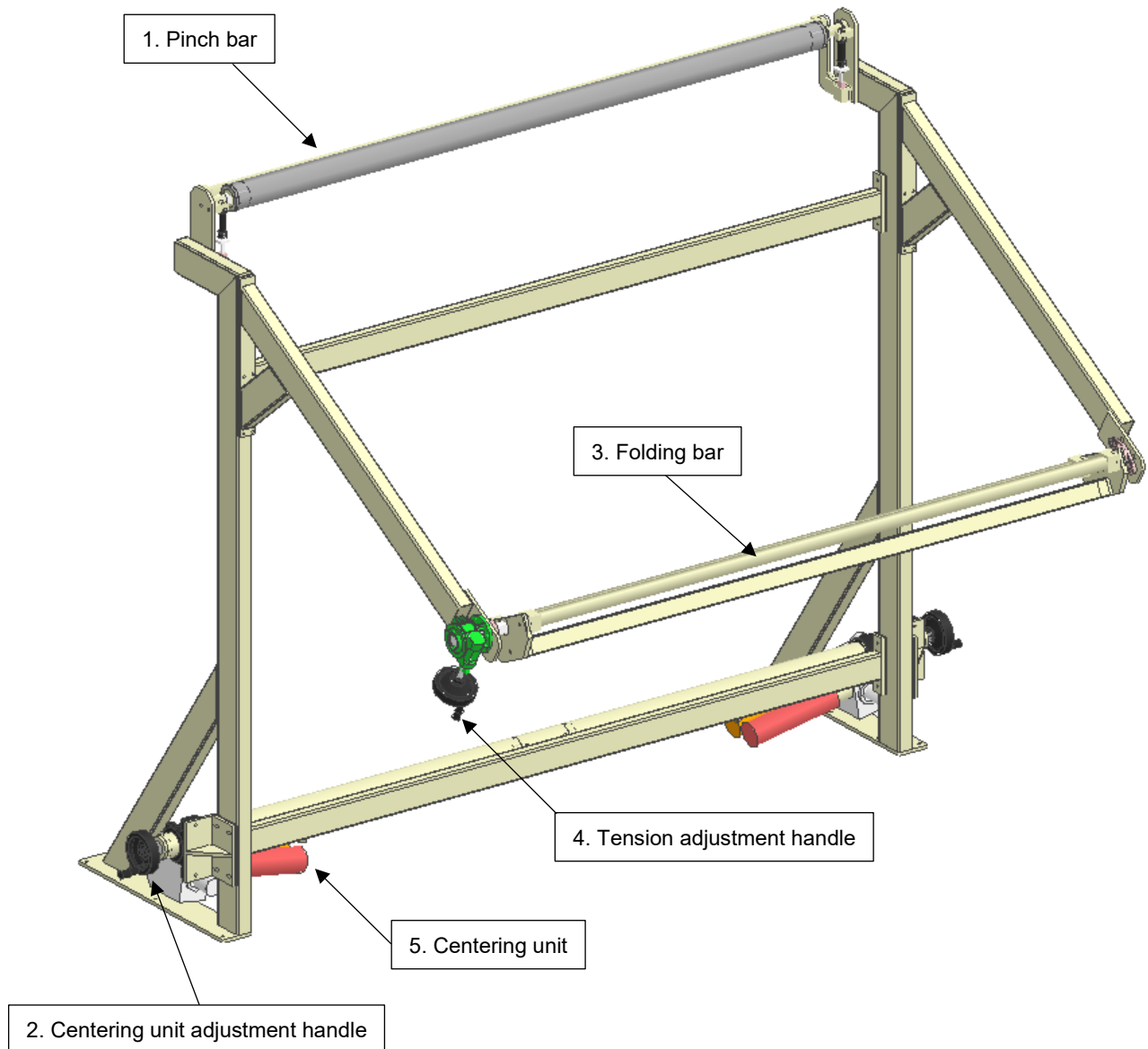
- SMALL ROLL W / CENTR. .... 1 unit
- PLAITED HU1800 ..... 1 unit

## SMALL ROLL W / CENTR.



No.	Name	Function
1	Seam detection sensor	A sensor that detects media seam.
2	Setting panel of the seam detection sensor	It is a controller of the seam detection sensor. Normally not operated.
3	Emergency stop button	Button to stop this option in case of emergency.
4	Operation panel	This panel is used to operate the start / stop and Automatic / Manual switching of this option.
5	Tension bar	Move up and down to automatically and optimally adjust the media tension.
6	2 inch paper core set shaft	Shaft for attaching a 2 inch paper core.
7	Beam sensor	This option and the printer main unit stops when light is shaded.
8	Media end detection sensor	A sensor that detects when the media has ended.

## PLAITED HU1800

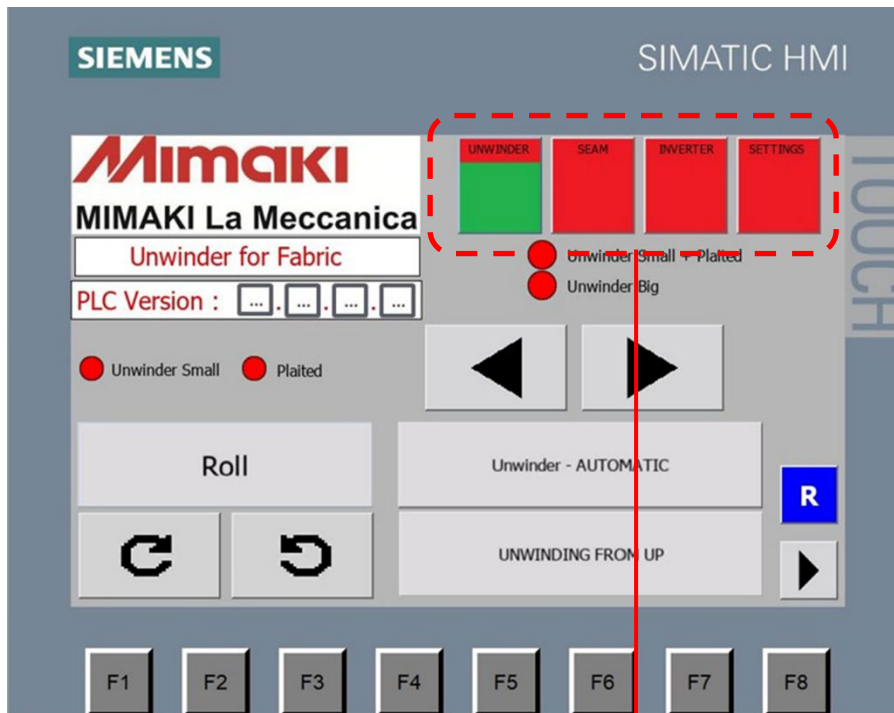


No.	Name	Function
1	Pinch bar	Opens and closes in synchronization with the tension bar. Tension the media.
2	Centering unit adjustment handle	Handle to adjust the position of the centering unit.
3	Folding bar	Folding bar for applying tension to media.
4	Tension adjustment handle	Handle to change the angle of the folding bar.
5	Centering unit	Unit for centering media.



## Operation panel

### Startup screen



#### Main menu

The screen changes to each of the following screens.  
Item with a green button are currently active.

Name	Function
UNWINDER	Operation screen of SMALL ROLL W / CENTR.
SEAM	Settings related to the seam detection sensor.
INVERTER	It is a setting related to another option, BIG ROLL UNWINDER HU1800 (Option-J0485). Not covered in this manual.
SETTING	Language setting You can switch between English and Italian.

# UNWINDER screen

Page 1

The screenshot shows the SIMATIC HMI interface for the Unwinder. At the top, it displays 'SIEMENS' and 'SIMATIC HMI'. The main header includes the 'MIMAKI' logo and 'MIMAKI La Meccanica' text. Below this, it says 'Unwinder for Fabric' and 'PLC Version : ...'. There are several status indicators: 'Unwinder Small', 'Plaited', 'Unwinder Small + Plaited', and 'Unwinder Big'. The central area contains a 'Roll' button, a 'Unwinder - AUTOMATIC' button, and a 'UNWINDING FROM UP' button. A 'Face out winding / Face in winding switch button' is located to the right of the automatic button. A 'Roll / Plaited switch button' is at the top right. An 'Error history display' (warning icon) and an 'Error reset' button (blue 'R') are also present. A 'To page 2' button is at the bottom right. A dashed red box highlights the 'Manual rotation button' (two circular arrows) and the 'Automatic / Manual switch button' (left and right arrows). A row of function keys (F1-F8) is at the bottom.

Roll / Plaited switch button

Manual rotation button  
Valid only in manual mode

Automatic / Manual switch button

Face out winding / Face in winding switch button

Error history display  
(When an error occurs)

Error reset

To page 2

Page 2

The screenshot shows the SIMATIC HMI interface for the Unwinder (Page 2). It features a 'Media END ON' button, a 'Roll Descarge' button, and a 'Plotter Belt' section. The 'Plotter Belt' section includes 'REVERSE' and 'FORWARD' buttons. A 'Printer main unit belt by manual button' is located below the plotter belt controls. A 'To page 1' button is at the top right. A legend indicates: 'ON: Media end detection enabled' and 'OFF: Media end detection disabled'. A dashed red box highlights the 'Plotter Belt' controls. A row of function keys (F1-F8) is at the bottom.

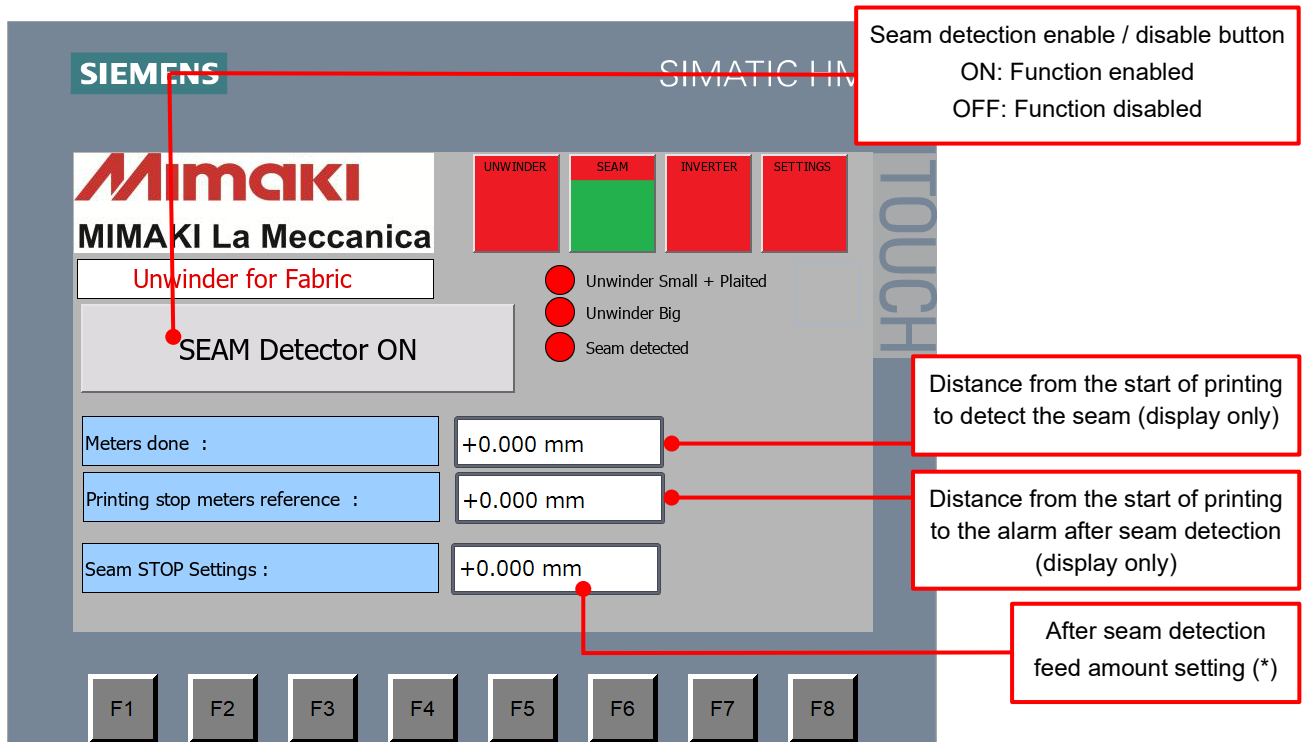
To page 1

ON: Media end detection enabled  
OFF: Media end detection disabled

Roll removal button

Printer main unit belt by manual button

## SEAM screen



- \* When a seam is detected, the specified amount is fed and printing stops in the pause state. To resume printing, feed the seam out of the scan area and then press the Restart button.

## About media

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This section describes the available media size and how to handle them.

### Available media size

Maximum media width	1,890 mm	
Minimum media width	500 mm	
Media thickness	5 mm or less	
For SMALL ROLL W / CENTR.	Media outside diameter	400 mm or less
	Media weight	100 kg or less
	Media inner diameter	2 inch (paper core)
Printing surface	Both face in and face out are possible	
Printing speed	Based on the printer main unit	

# Set a media

This section mainly describes changes to the media setting method that are caused by using this option. For the basic media setting method in the printer main unit, refer to the operation manual of the printer main unit.

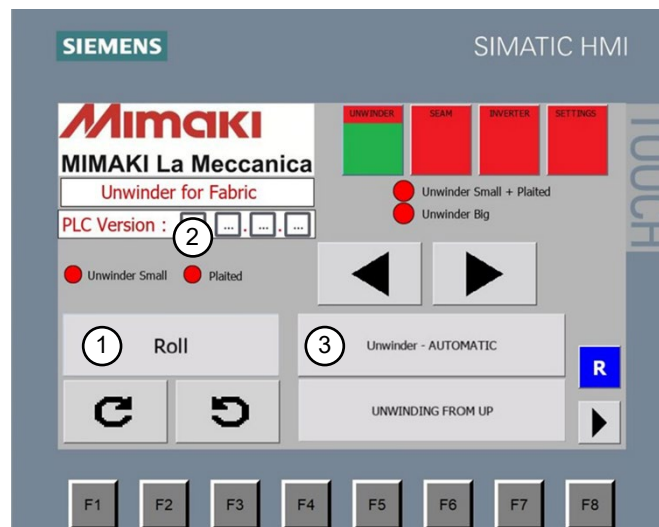
## Plaited media

Set the plaited media in this option.

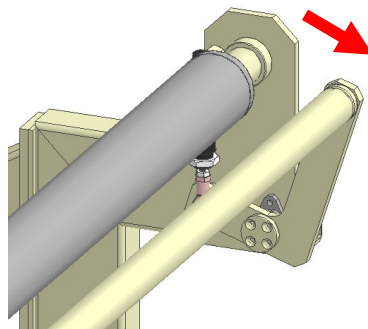
### Preparation

1

Setting the operation panel.



1. Set the Roll / Plaited switch button to "Plaited".
2. Check that the "Plaited" lamp is green.
3. Set the Automatic / Manual switch button to "Unwinder-MANUAL".
4. The pinch bar at the top of this option opens automatically.



## Set of media

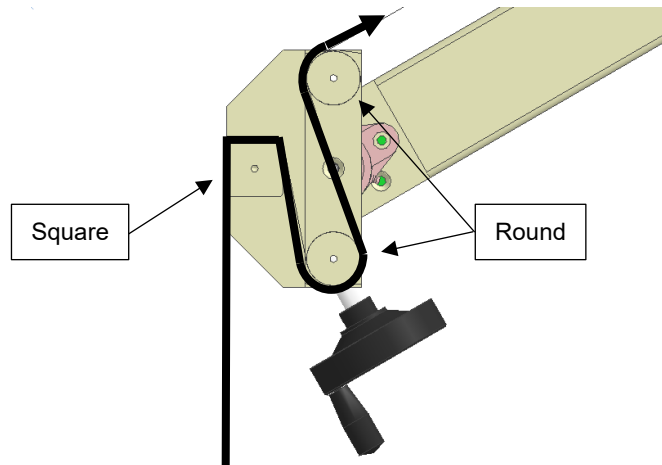


- Use a stepladder, etc. for work at height, and be careful not to fall.

1

### Pass the media through the folding bar.

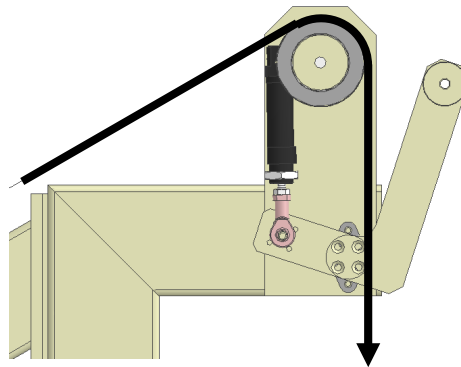
- Pass the media through the folding bar as shown.
- The direction of the folding bar can be changed by rotating the tension adjustment handle.



2

### Pass the media through pinch bar.

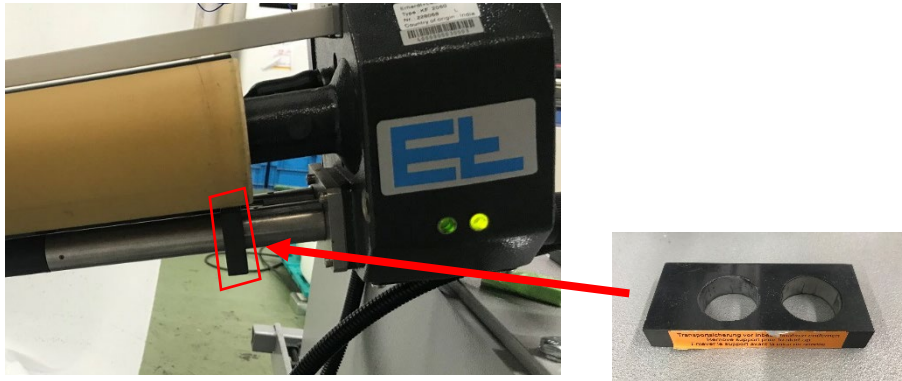
- Pass the media through the pinch bar as shown in the diagram.



3

### Remove the sensor cover.

- Pull the sensor cover of the centering unit straight inward and remove it.



- When not using the centering unit, be sure to return the sensor cover to its original position (the lamp changes from red to green).

4

### Temporarily adjust the width of the centering unit.

- Turn the centering unit adjustment handle to temporarily adjust the position of the centering unit according to the width of the media.
- Measure the width of the media with a measure etc. so that the vertical line of the sensor below the centering unit matches the edge of the media.



- The final adjustment is performed while flowing the media.

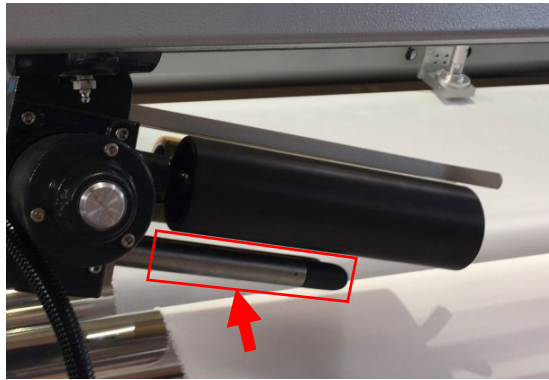
5

**Pass the media through the centering unit.**

- Pass the media between the black roller and the amber roller of the centering unit.



- The sensor may react when the media is passed, and the roller may move. If the sensor part is shaded with paper, you can work with the roller open.



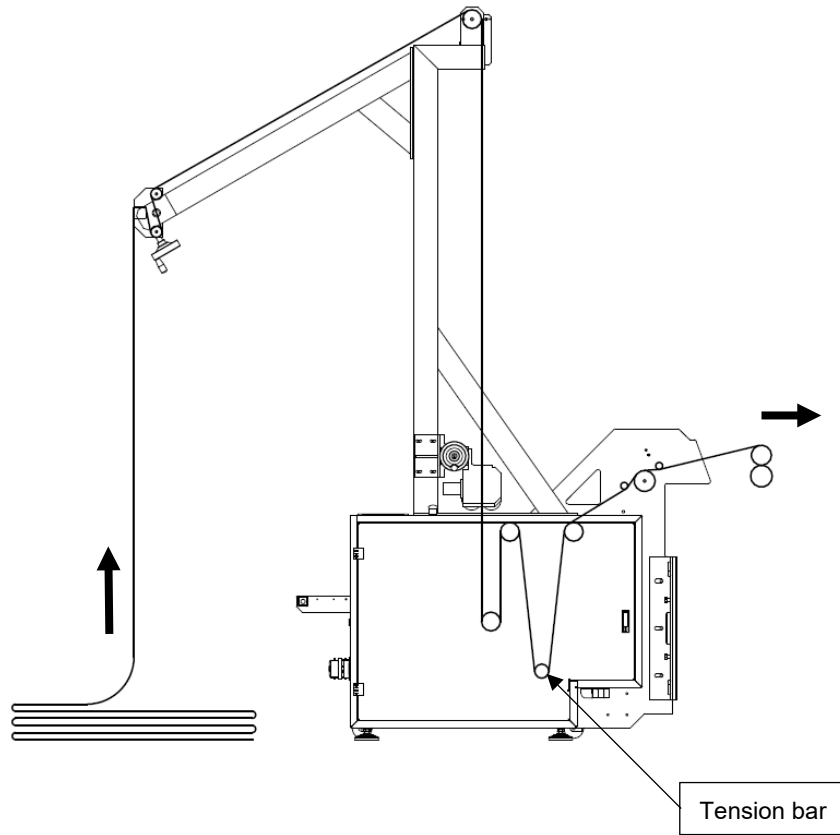
- When media setting is completed, remove the shading paper.



6

**Pass the media through SMALL ROLL W / CENTR.**

- Insert the media into SMALL ROLL W / CENTR. as shown.



## Roll media

Set the roll media wound on the paper core in SMALL ROLL W / CENTR.

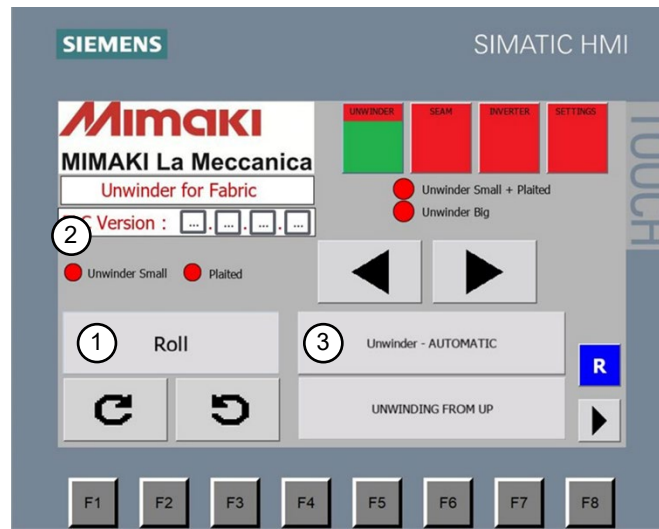
### Preparation



- Note that the **red** part is different from that of plaited media.
- Because roll media is heavy, use a lift or work with two or more people.

1

#### Setting the operation panel.



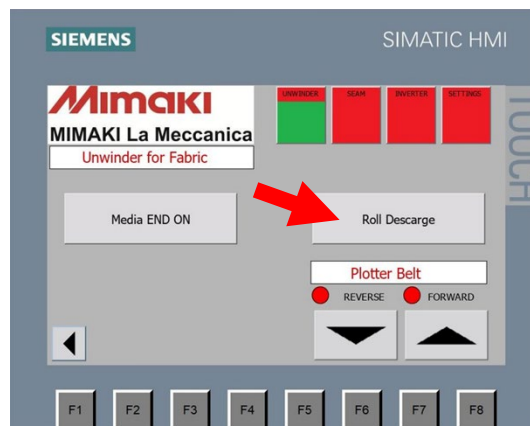
1. Set the Roll / Plaited switch button to “**Roll**”.
2. Confirm that the “**Unwinder Small**” lamp is green.
3. Set the Automatic / Manual switch button to “Unwinder-MANUAL”.

### Set of media

1

#### Operate the operation panel.

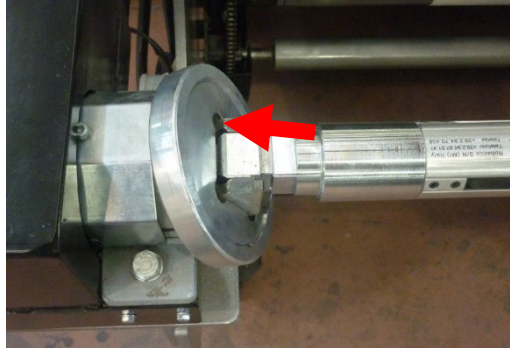
- Press “Roll Discharge” button on the second page of the operation panel UNWINDER screen. The 2 inch paper core set shaft rotates and can be removed.



2

**Remove the air shaft.**

- Open the disc-shaped support and remove the shaft.
- Set the shaft on the media, and attach the shaft to the SMALL ROLL W / CENTR.
- Close the disc-shaped support.



3

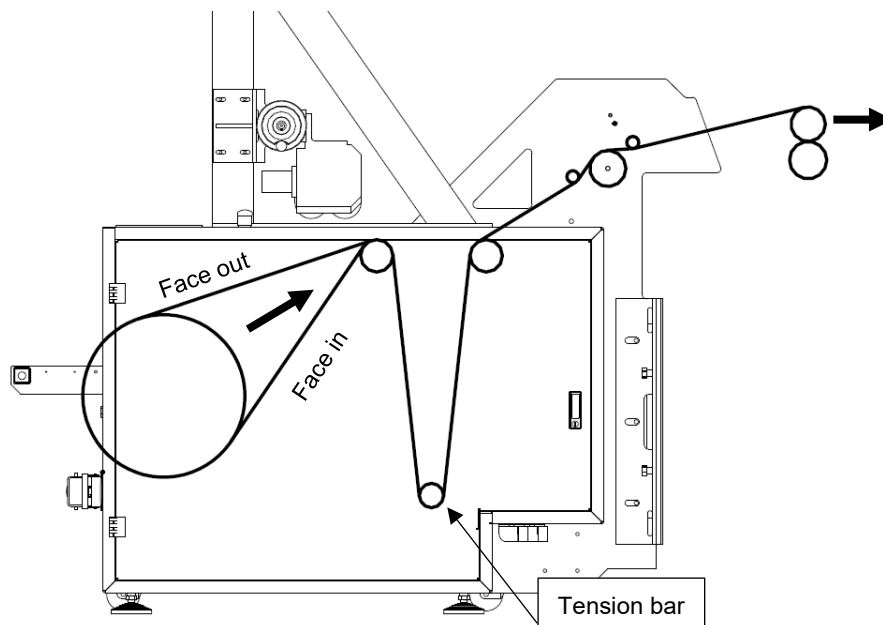
**Secure media.**

- Inject air into the shaft with the supplied air gun to fix the media and shaft.



4

**Pass the media (when not using the centering unit).**



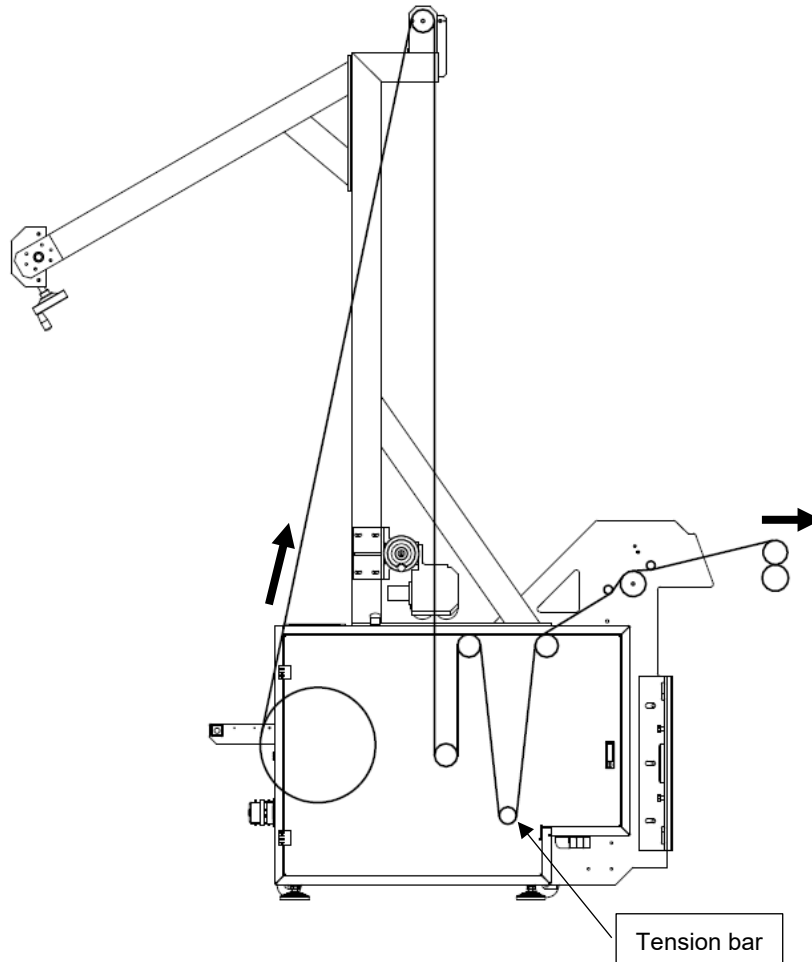
5

**Pass the media (when using the centering unit).**

- The way to pass the media to the pinch bar and centering unit is the same as for the folding media.



- Face in cannot be set.



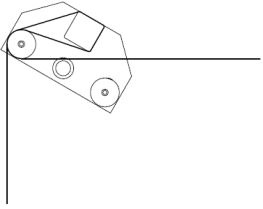
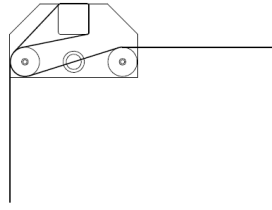
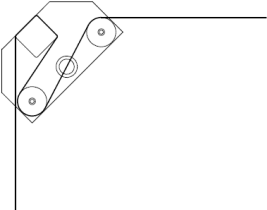
# Print out

## For the plaited media

### How to adjust the folding bar

Unlike roll media, back tension can not be applied to the folding media due to the roll rotation. Adjust the tension by changing the angle of the folding bar.

Adjustment of tension is performed while flowing media by automatic operation.

Folding bar status	Tension
	High tension
	↑ ↓
	

### Automatic operation

1

#### Adjust the folding bar.

- Adjust the position of the folding bar and increase the tension.

2

#### Adjust the media position.

- Correct the media fold and correct the width position so that the media is as close to the center of this option as possible.
- If there is extreme slack in the media, stretch it appropriately.

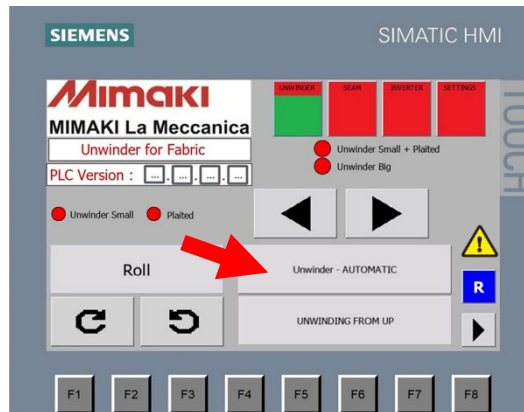
3

**Close the pinch bar.**

- Press the “Automatic / Manual” switch button on the first page of the operation panel UNWINDER screen to set automatic operation.
- The pinch bar closes when automatic operation is performed.



- If you are using SP V1.41 or earlier, the pinch bar will not close and a “DANCING ROLLER DOWN” error occurs.
- Use with SP V1.44 or higher.





4

**Feeding the media with the printer main unit.**

- Operate the feed belt of the printer main unit manually, and adjust the tension bar is almost midway between ascending and descending ends.

5

**Reset errors if they occur.**

- Press the  button on the first page of the operation panel UNWINDER screen to reset the error.
- If you cannot reset, press  (error history display button) to check the contents, remove the cause, and then press the reset button.
- An error will occur if the beam sensor is blocked during media setting.

6

**Start automatic operation.**

- Operate the printer main unit to start printing.

7

**Adjust the folding bar.**

- Adjust the folding bar to get the best tension.
  - When the tension is low ... The tension bar does not rise even if the pinch bar closes, and falls sharply.
  - When the tension is high ... The tension bar does not descend even if the pinch bar opens.

8

**Adjust the centering mechanism.**

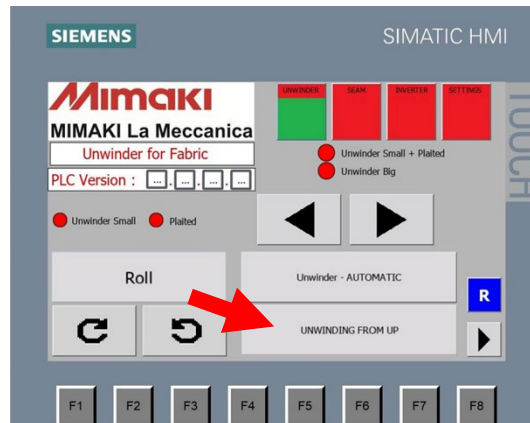
- Turn the centering unit adjustment handle and adjust the position while watching the media flowing.

## For roll media

### Face out / face in switch button

Set using the “Face out winding / Face in winding” switch button on the first page of the operation panel UNWINDER screen.

- UNWINDING FROM UP ..... Face out
- UNWINDING FROM DOWN ..... Face in



- When the centering unit is used, the face in cannot be set.

### Automatic operation


1

#### Check the position of the tension bar.

- Adjust the tension of the media so that the tension bar is almost midway between ascending and descending ends.
- Use the feed on the printer main unit or the “manual rotation” button on the option operation panel of the printer main unit.

2

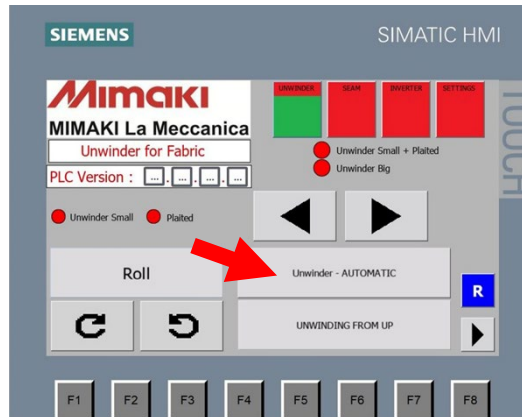
#### Check the error.

- If an error has occurred, press  (error history display button) to check the content, remove the cause, and then press the reset button.
- An error will occur if the beam sensor is blocked during media setting.

3

### Start automatic operation

- Press the “Automatic / Manual” switch button on the first page of the operation panel UNWINDER screen to set automatic operation.



- Operate the printer main unit to start printing.



## User maintenance

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User maintenance should be taken according to the frequency of use or on a regular basis so that you can keep using this option for a long time.

- If the exterior of this option becomes dirty, wipe it off with a soft cloth which contains water or a diluted neutral detergent after squeezing it well.
- Remove lint and dry ink immediately.
- Check that the rotating parts work smoothly. If you feel any unusual noise or vibration, contact your dealer or our sales office.

## Troubleshooting

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### **The tension bar rises up / falls even when the folding bar is adjusted**

- Depending on the type of media, the tension may not be adjusted with the folding bar.
- It may be improved by increasing or decreasing the counter weight of the tension bar.
- Adjustment requires automatic operation with the option door open, which is dangerous. Call dealer or our service office.

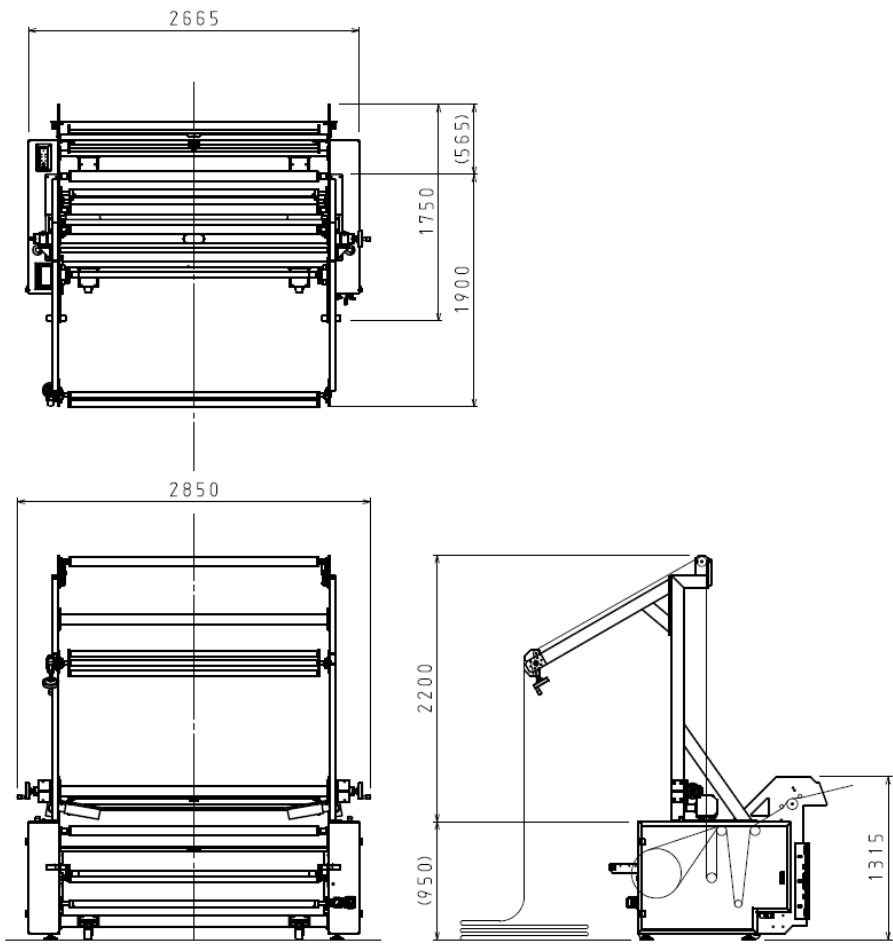
# Specifications

## SMALL ROLL W / CENTR.

Item	Specifications
Overall length	1,750 mm
Overall width	2,665 mm
Overall height	1,315 mm
Weight	575 kg
Operating environment	Compliant with the printer main unit
Power and air sources	Supply from the printer main unit

## PLAITED HU1800

Item	Specifications
Overall length	1,900 mm
Overall width	2,850 mm
Overall height	2,200 mm
Weight	200 kg
Operating environment	Compliant with the printer main unit
Power	Supply from the SMALL ROLL W / CENTR.



**memo**

