

# *Trojan* ②

## User Guide

Version 3.8



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## 1 Certificate of compliance and Safety Information

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



EC DECLARATION OF CONFORMITY			
2006/42/EC Annex II A Original			
<b>Manufacturer and authorised to compile the technical file:</b>			
 <b>Trojanlabel</b> Knud Bro Alle 4B 3660 Stenløse Denmark			
<b>Hereby declares that machine type:</b>			
<b>Trojan</b> ② TrojanTwo digital press			
<b>Is produced in accordance with the following EU directives:</b>			
<ul style="list-style-type: none"> <li>- 2006/42/EC Machinery directive</li> <li>- 2004/1008/EC EMC directive</li> </ul>			
 Signature			
Thomas Jensen	Product Director	Stenløse	15-1-2015
Name	Occupation	Place	Date

## 1.1 Introduction

### Original instructions

These instructions are Trojanlabel’s original instructions for the Trojanlabel press (henceforth called the machine or TrojanTwo press).

### Purpose

The purpose of these instructions is to ensure correct installation, use, handling and maintenance of the machine.

### Accessibility

The instructions are to be kept in a location known to the staff and must be easily accessible for the operators and maintenance personnel.

### Knowledge

It is the duty of the employer (the owner of the machine) to ensure that anyone who is to operate, service, maintain, or repair the machine have read the instructions. As a minimum, they should have read the part(s) relevant for their work. In addition, anyone who is to operate, service, maintain, or repair the machine is under obligation to look for information in the instructions themselves.

## 1.2 General information

### Manufacturer

The machine has been manufactured by:

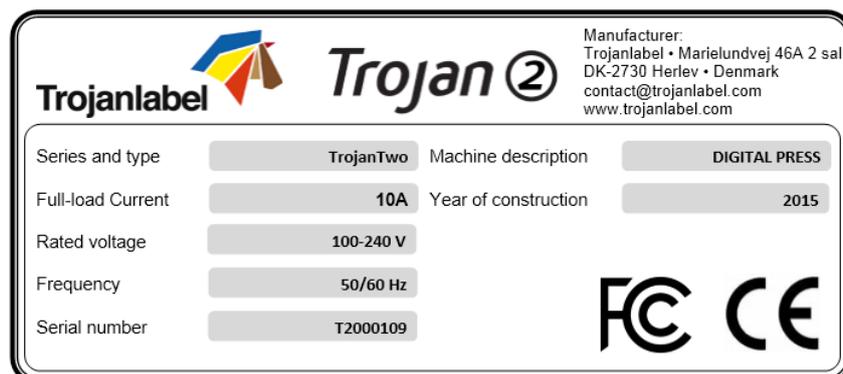
Company name: Trojanlabel  
 Address: Marielundvej 46A 2 sal  
 2730 Herlev  
 Denmark

### The machine’s designation

The machine’s complete designation is Label Press type Trojan<sup>®</sup>2.

### Machine plate

The machine plate (picture) is situated on the back side of the machine at the lower left corner:



### 1.3 Overview and application

#### 🔧 General description

The machine consists of an unwinder/rewinder, double dancer arm system, winder tensioner, label sensor, nip roller, automatic web clamps, splice table, service door, slitter (optional) and 4 ink tanks.

If any changes or alterations are made to the machine, these changes or alterations must be reflected in these instructions as necessary.

#### 🔧 The machine's purpose and intended use

Application: The machine is only to be used to print labels.

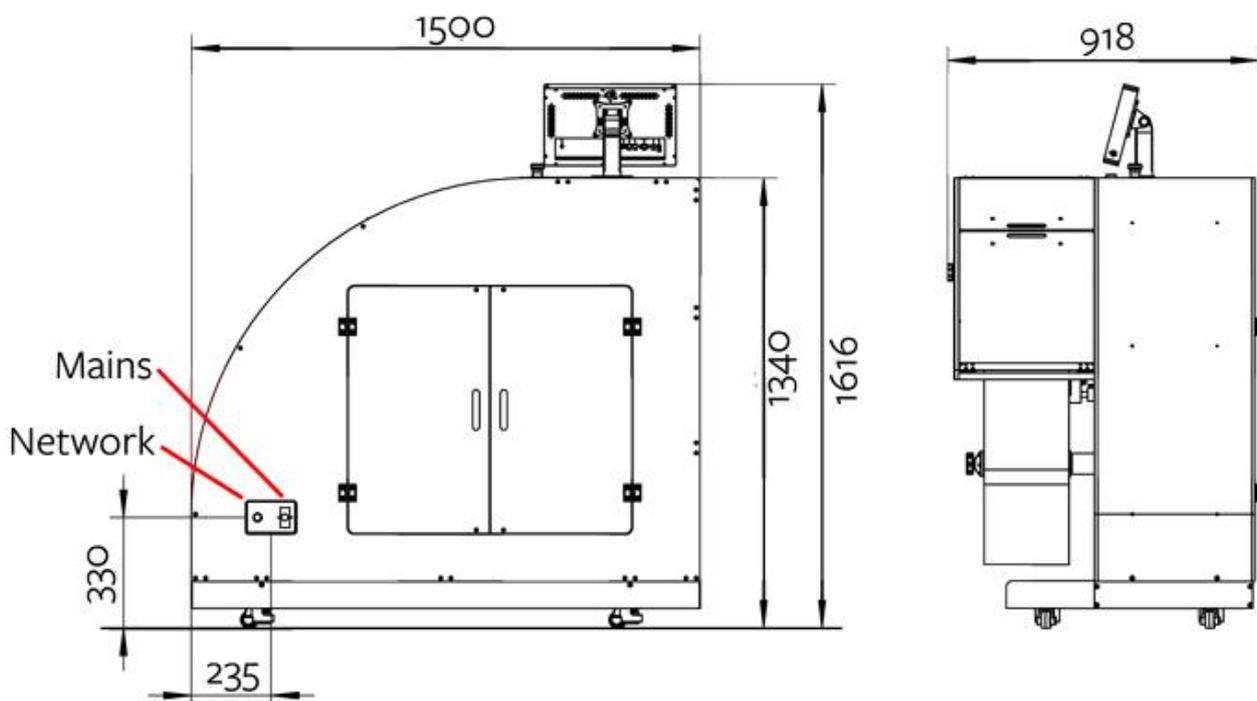
The machine must not be used for any other purpose than the purpose mentioned above.

#### 🔧 Warning about foreseeable misuse

The TrojanTwo may not be used with inks not endorsed by Trojanlabel. All inks purchased from Trojanlabel or from official Trojanlabel distributors worldwide are endorsed by Trojanlabel.

#### 🔧 Technical specifications

Physical dimensions in millimeters:



Weight approx. 350-360 kg including inks.

## Electrical:

- Nominal supply voltage: 110-240V
- Nominal supply frequency: 50-60hz
- Estimated peak consumption: 400W
- Machine power supply:  
1000 W (48 VDC, 21 A), please see “T2 Meanwell RSP-1000-spec.pdf” for details:  
<http://www.trojanextranet.com/media/55924/T2%20Meanwell%20RSP-1000-spec.pdf>

## **Operating positions, location and arrangement**

The machine is intended to be used in a light industrial / office environment. The operator operates the machine in a standing or sitting position.

## **Temperature**

Recommend operational temperatures

- Operation: 20° to 30° Celsius at RH 22-80% (non-condensing)
- Storage: -5° to 50° Celsius at RH up to 85%, non-condensing at 65°

If transferring the machine from different temperature conditions, ensure that the machine has time to acclimatize.

## **Operating Environment**

It is important that the machine is placed in a clean environment as possible, with sufficient air conditioning/cleaning. Avoid placing it in an environment with dust and paper debris, as the print head nozzles are sensitive to this.

## **Label Materials**

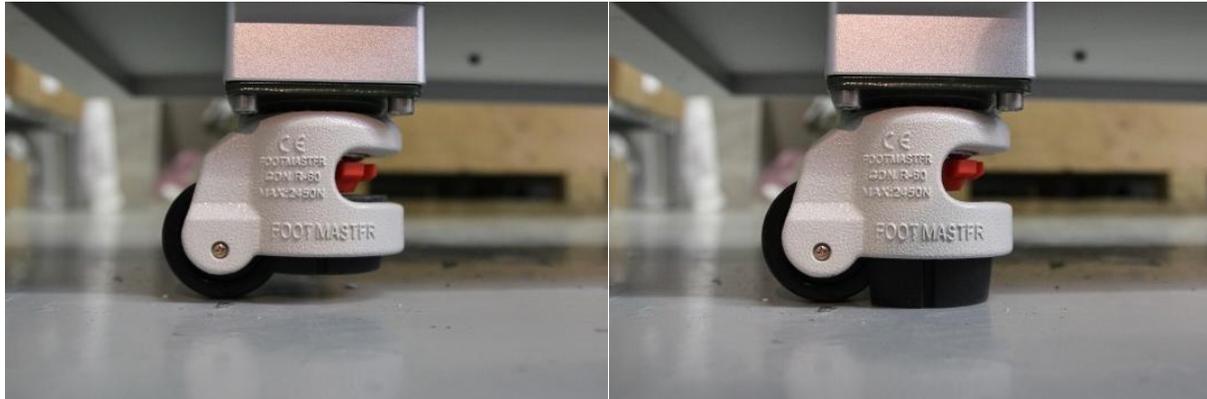
The machine requires ink jet coated materials for optimal print quality; some non-coated materials will also work. Please contact Trojanlabel or your distributor for recommendations of suited materials.

It is imperative to have a local source of material, to ensure a stable production.

## 2 Setting up the TrojanTwo

### 2.1 Moving and physical setup

The machine is equipped with four (4) wheels for light movement. Do not attempt to push the machine over doorsteps or other obstacles regardless of size. Due to the very low clearance, please take care if there are even small height variations of the surface.



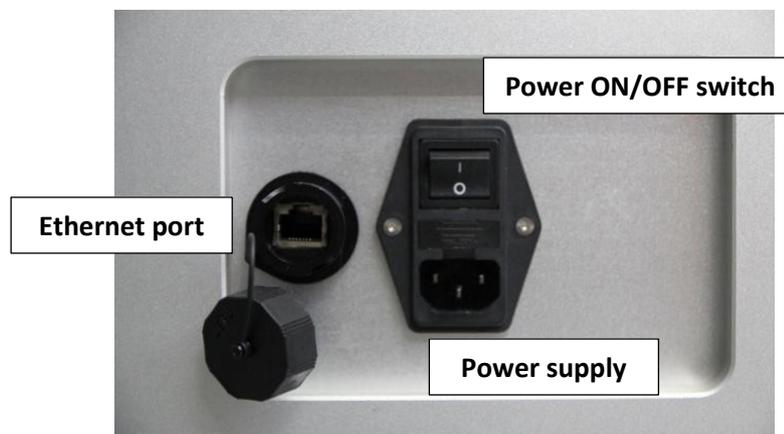
Place the machine on a stable level surface and secured by lowering the built-in the stands, using the red tooth-wheel, until the wheels move freely without touching the ground. Confirm the machine is leveled, using a spirit leveler.

### 2.2 Cabling (network and power)

The machine has two cable inlets:

1. Power Supply
2. Ethernet

Only the power supply cable is necessary for powering up the machine. The network cable is necessary for sending new print jobs to the TrojanTwo and for remote support/software updates.



**NOTE:** Some units does not have the cover for the Ethernet port.

**NOTE:** Ethernet cable is not included in the TrojanTwo package

### 3 Power on

#### 3.1 Visible safety check

Before powering on the TrojanTwo, visibly ensure that no foreign objects are interfering with the print engine or web-path.

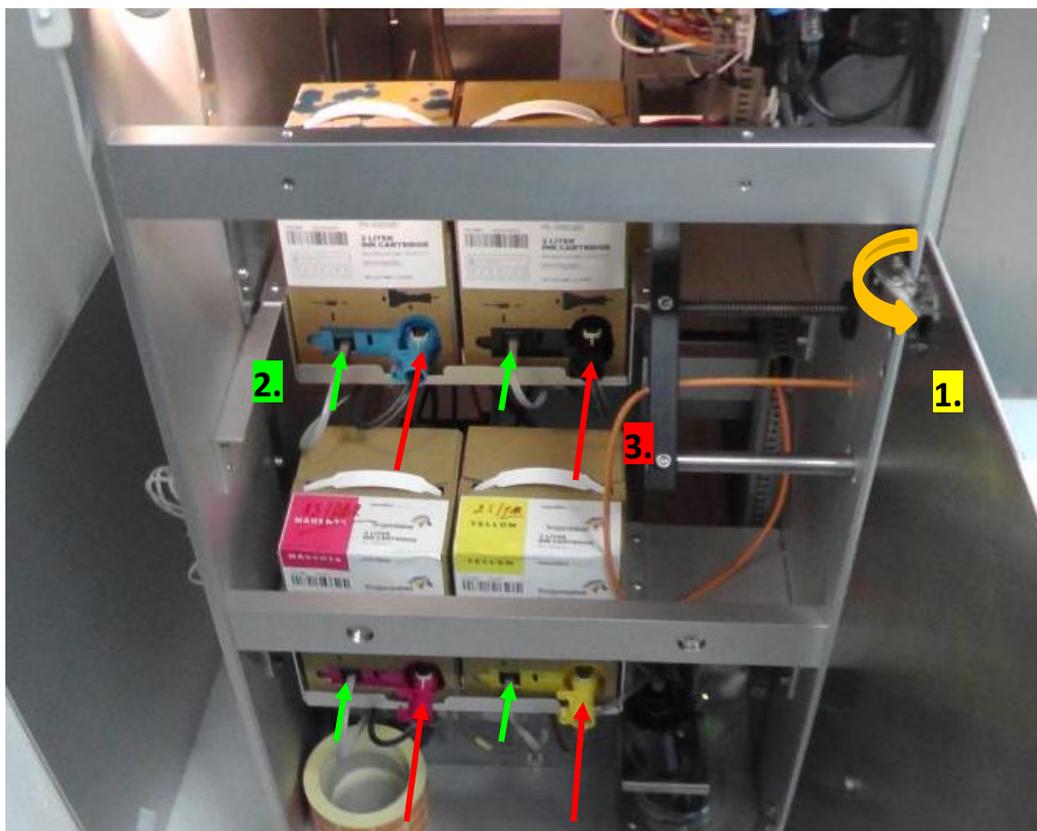
#### 3.2 Power on process

1. Press the physical power switch on the backside of the TrojanTwo, switching it from 0 to 1.
  - a. Turning the main power switch on starts up TrojanControl touch screen and print engine. For safety reasons the web-path not powered up yet to prevent any unexpected movement of the label material.
  - b. Web state will display 'Emergency stop'.
2. Press the physical green start button which can be found on the top of the machine (near the screen) to initialize (power up) the web path system.
  - a. Web state will display 'Initializing' during this process.
  - b. The initializing process works with or without threaded label material.
3. The machine is fully functional, when the TrojanTwo tab is visible on the TrojanControl software and the 'Web state' field at status bar is 'Not calibrated'.

#### 3.3 Installing ink tanks and printhead

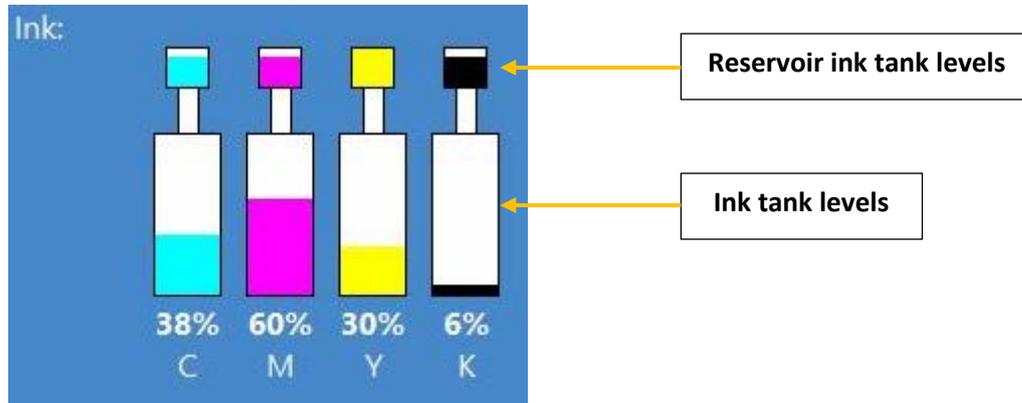
##### 3.3.1 Installing ink tanks

The TrojanTwo press uses CMYK ink tanks, each contain 2 liters of ink when opened. Every TrojanTwo ink tank is QA chip protected ensuring that only genuine Trojanlabel ink tanks can be used.



1. Open door on left side to gain access to ink tanks (orange arrow on picture above).
2. Connect QA chip reader cable (green arrow on picture above).
3. Connect tube with connector (red arrow on picture above).

When ink tank is connected the proper ink level and percentage is displayed at status bar on the touch screen:

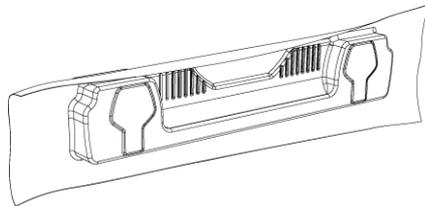


**NOTE:** TrojanTwo ink tanks are not refillable and shall be treated as hazardous waste when empty.

### 3.3.2 Installing the printhead

- **Unpacking printhead:**

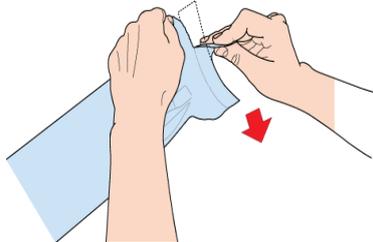
1. Open the end of the printhead package outer box and slide out the foil bag.



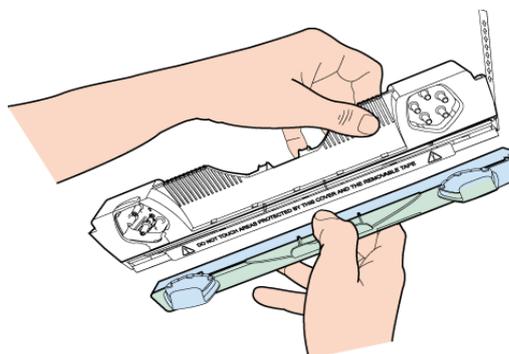
Inspect the integrity of the foil vacuum sealing. The foil bag should be formed tightly to the contours of the printhead cartridge as shown above. If the foil is loose to any degree then the seal has been compromised.

**NOTE:** If a poor seal is suspected, **DO NOT USE** the printhead. Report the issue to your supplier.

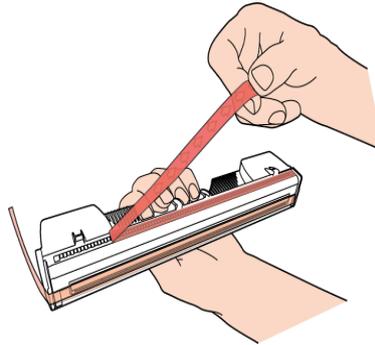
2. Carefully rip the foil packaging open at the notch. Use scissors if your foil bag does not have a notch or you are finding it difficult to tear the bag.



3. Remove the printhead from the foil bag.
4. Remove the orange protective plastic cover from the printhead cartridge. Holding the printhead cartridge by the handle
  - a. Release the flaps covering the ink ports
  - b. Release the clip retaining the cover near the centre of the printhead cartridge
  - c. Carefully remove the protective cover

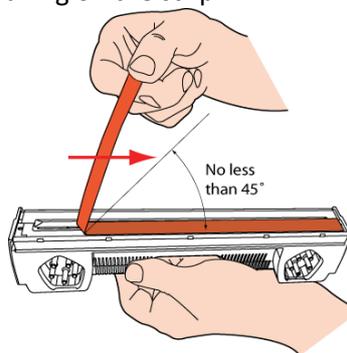


5. Remove the protective strip from the electrical contacts. While holding the printhead cartridge by the handle with one hand, grasp the pull tab with the other hand and, slowly and carefully, peel back the plastic strip covering the electrical contacts.



**NOTE:** Dispose of the removed strip immediately and do not allow the removed strip to contact the electrical contacts.

6. Remove the protective strip from the printhead nozzles. While holding the printhead cartridge by the handle with one hand, grasp the pull tab with the other hand and slowly and carefully peel back the plastic strip covering the printhead nozzles. Maintain an angle of no less than 45° with the printhead surface when pulling on the strip.



**NOTE:** Dispose of the removed strip immediately and do not allow the removed strip to contact the electrical contacts or the printhead nozzles.

**CAUTION!**

- **DO NOT touch the printhead cartridge's ink couplings, nozzle surface or the electrical contacts when installing the printhead cartridge. Hold the printhead cartridge ONLY by the handles.**
- **DO NOT unpack the printhead cartridge until the machine is ready for installation. Once unwrapped, delay in installing the printhead can compromise print quality due to dehydration.**
- **DO NOT place an unwrapped printhead on any surface before installing. Protect the printhead at all times from dust, fibers, dirt and other contaminants.**

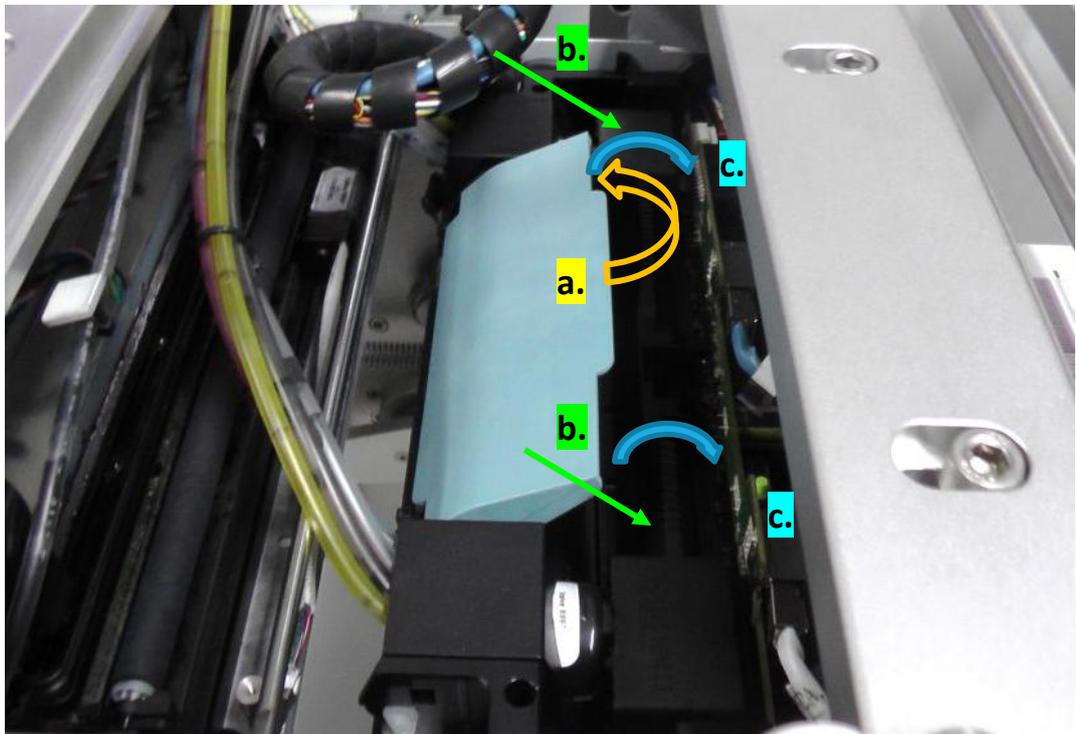
**IMPORTANT:** Do not throw away the printhead packaging. The white box has the serial number, part number and manufacturing date of the printhead. Also it is recommended to store printheads which are currently not installed in the original packaging.

- **Installing printhead:**

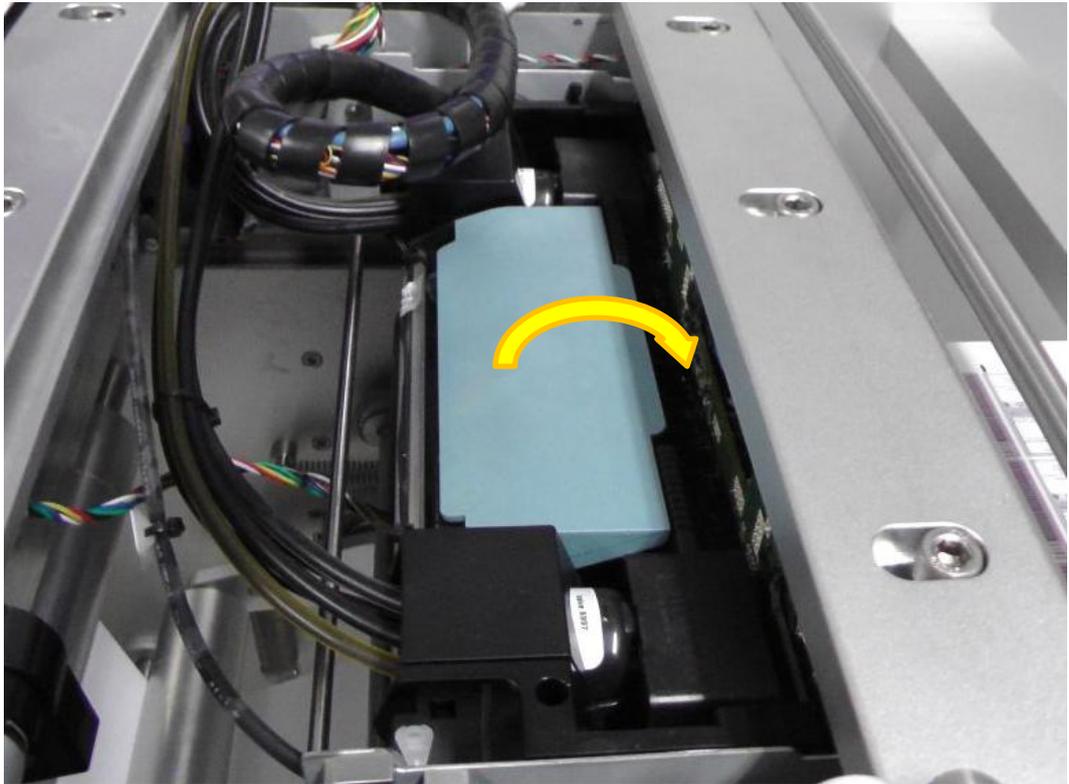
1. Open top cover on TrojanTwo press to gain access to the print engine.
2. Press Release Printhead button in TrojanTwo -> Maintenance menu to open printhead latch:



3. Insert printhead by the handle into the cradle.
  - a. Open printhead latch all the way up.
  - b. Insert printhead into the cradle by the handles.
  - c. Pull the printhead backwards until it snaps into the proper place standing upright.



4. Close printhead latch.



5. Press Install Printhead button in TrojanTwo -> Maintenance menu to start priming up the printhead with ink.



**NOTE:** When the system is primed up for the first time (first installation when there has not been any ink in the ink delivery system and the reservoir ink tanks), printhead priming only begins when reservoir ink tanks are filled up with ink. This may take up to 20 minutes before actual priming of the printhead begins.

## 4 Threading the machine

There are two common methods of threading the machine, threading from scratch, i.e. there is no material present in the machine or using the currently installed material to thread the machine.

### 4.1 Unwinder and rewinder roll direction

#### 4.1.1 Rolling direction unwinder - Ink jet coating on the inside or outside

Regardless of the threading procedure, you must insert the label roll on the unwinder core according to the ink jet coated side (coated side must be up for printing).

1. **Outside**

If the ink jet coating is on the outside of the material, which is the most common, place the roll so the end of the material is facing clock wise.

**IMPORTANT:** Ensure Media Settings -> 'Unwinder or Rewinder label position' states: Outside

Unwinder label position:	Outside	▼
Rewinder label position:	Outside	▼

2. **Inside**

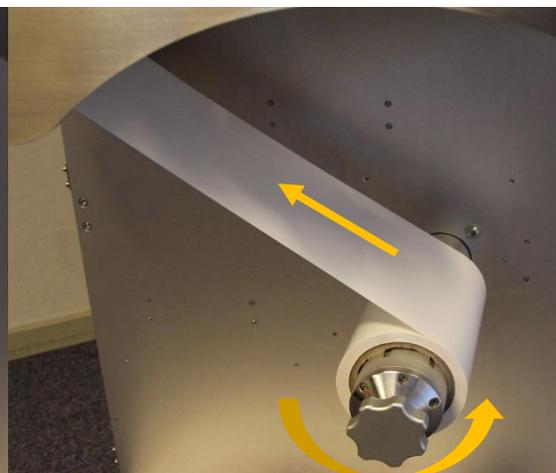
If the ink jet coating is on the inside of the material, then place the roll so the end of the material is facing counter clock wise.

**IMPORTANT:** Ensure Media Settings -> 'Unwinder or Rewinder label position' states: Inside

Unwinder label position:	Inside	▼
Rewinder label position:	Inside	▼



*Printing on outside of label roll.*



*Printing on inside of label roll.*

## 4.1.2 Rolling direction rewinder

The rewinder can place the label material on the outside or inside of the roll. The criteria are the same as for the unwinder, please refer to the above for placement and direction and update the Media settings to reflect this.

## 4.2 Threading from scratch

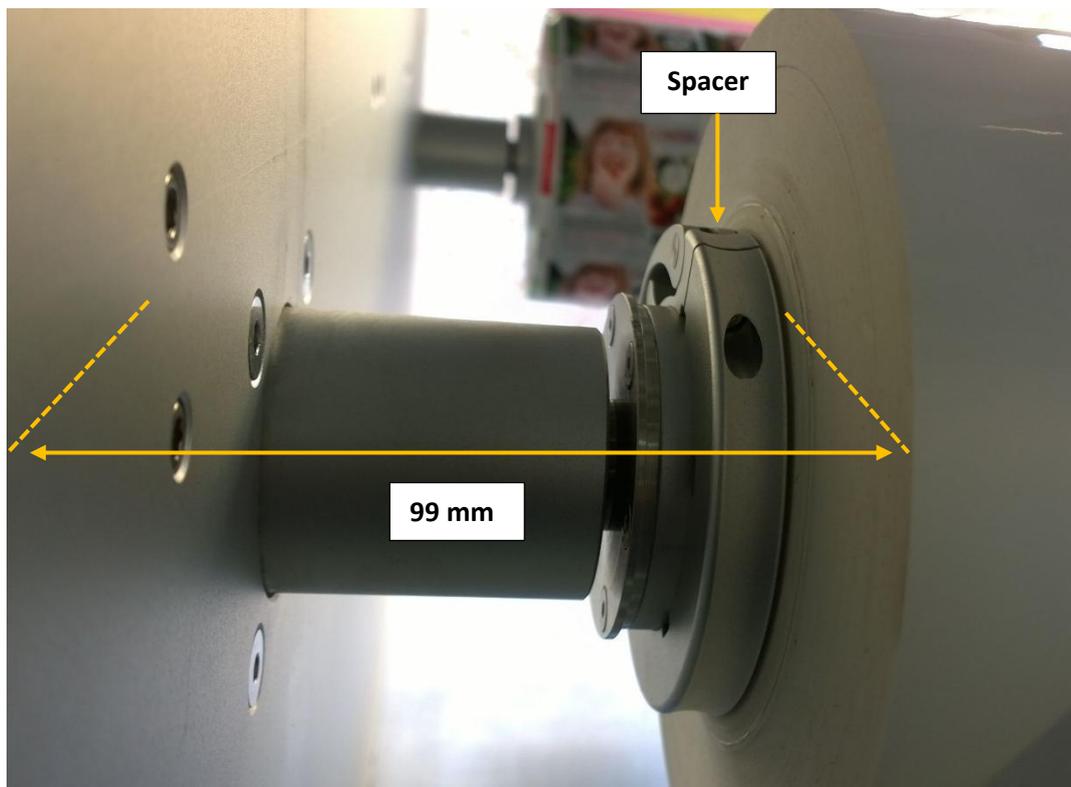
- 1 Press **'Reload Web' button** at TrojanTwo -> Handling menu.
- 2 Remove the web cleaner (it is sitting on magnets and can be removed easily).
- 3 Place the chosen material on the unwinder roll according to chapter 4.1.1.
- 4 Press **'Reset Sidesteer Position' button** at TrojanTwo -> Handling menu to set unwinder core horizontal position to the default position.

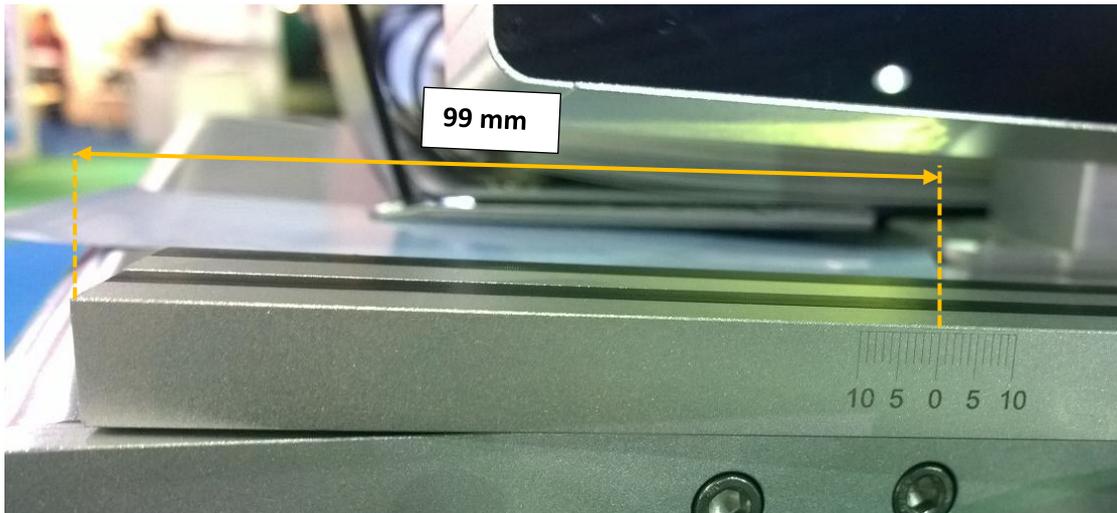


Reset Sidesteer Position button (TrojanTwo\Handling menu)

**NOTE:** Reset Sidesteer Position button is recommended to use every time after Reload Web button is pressed.

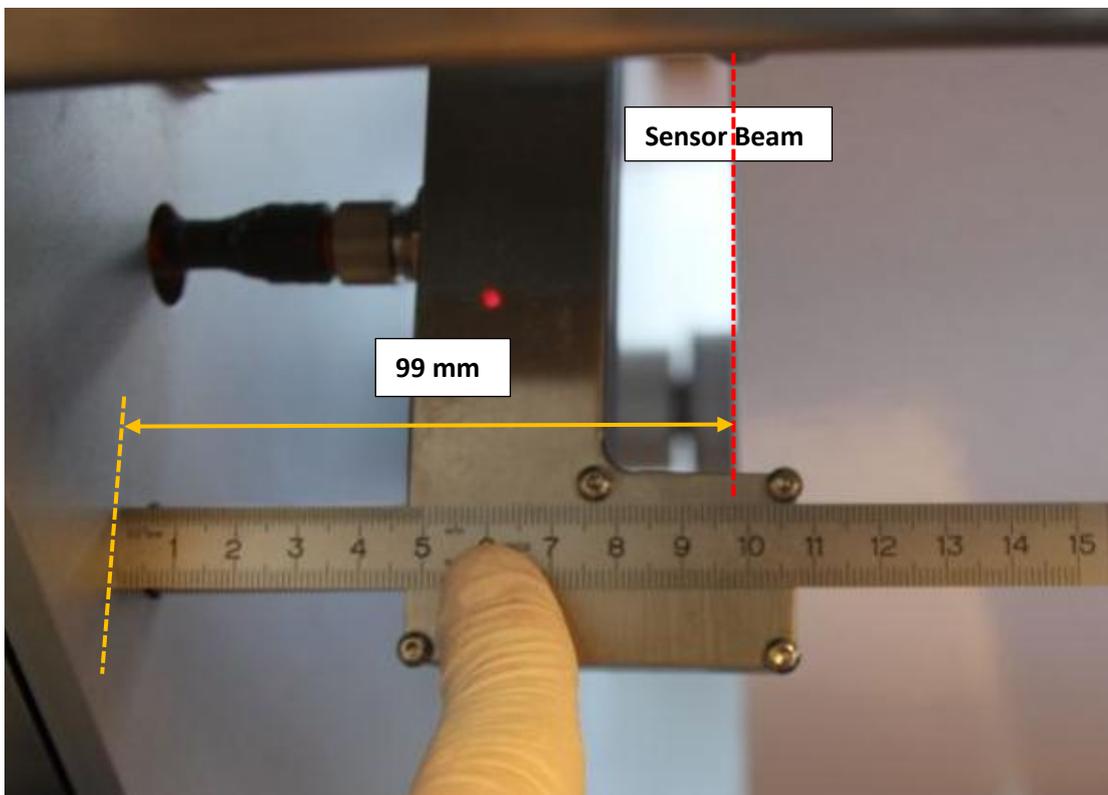
- 5 Adjust Label roll left edge on unwinder core compared to the wall behind (for label edge sensor zero point calibration, see section 4.4). Make sure the label roll left edge is 99 mm from the wall. Use the metric scale on the magnet bar or a ruler for measuring the 99 mm.





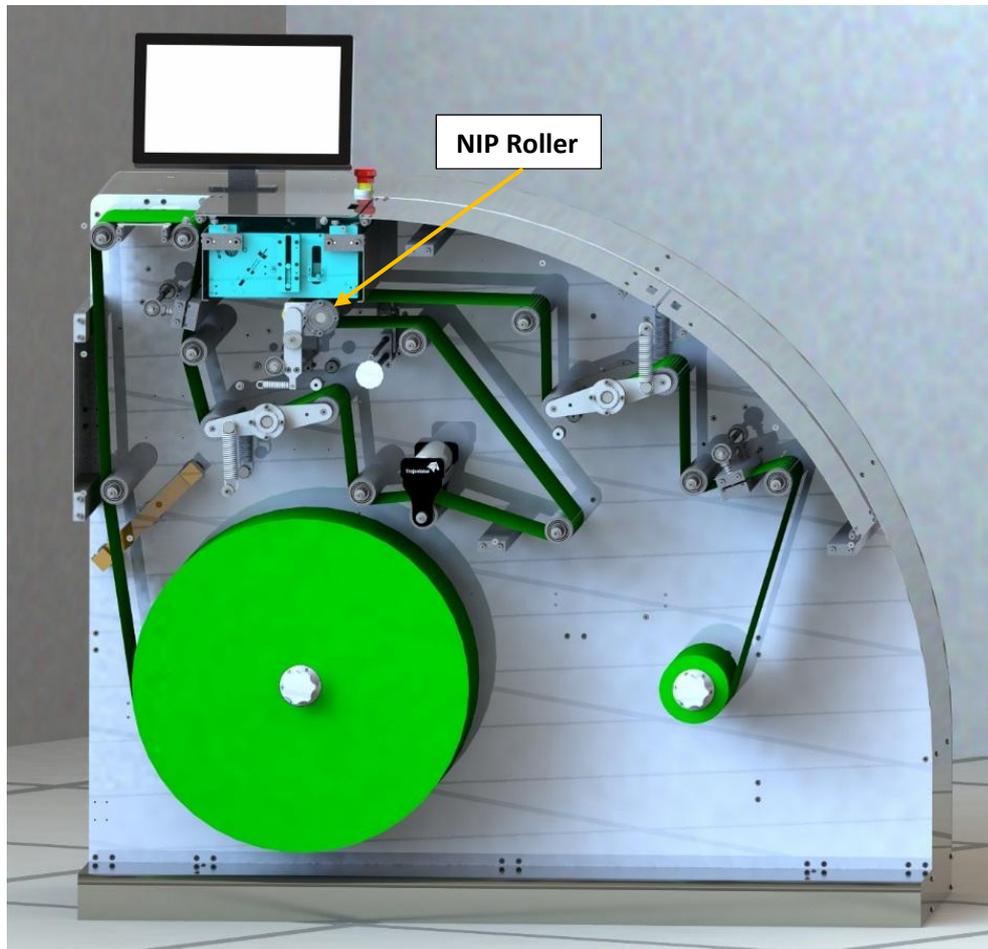
*Metric scale on magnet bar*

- 6 Adjust position of label edge sensor to left edge of the label roll (see section 4.4 for adjusting label edge sensor)



*Label edge sensor in proper (default) position*

- 7 Thread the machine according the picture below, until you reach the rewinder.

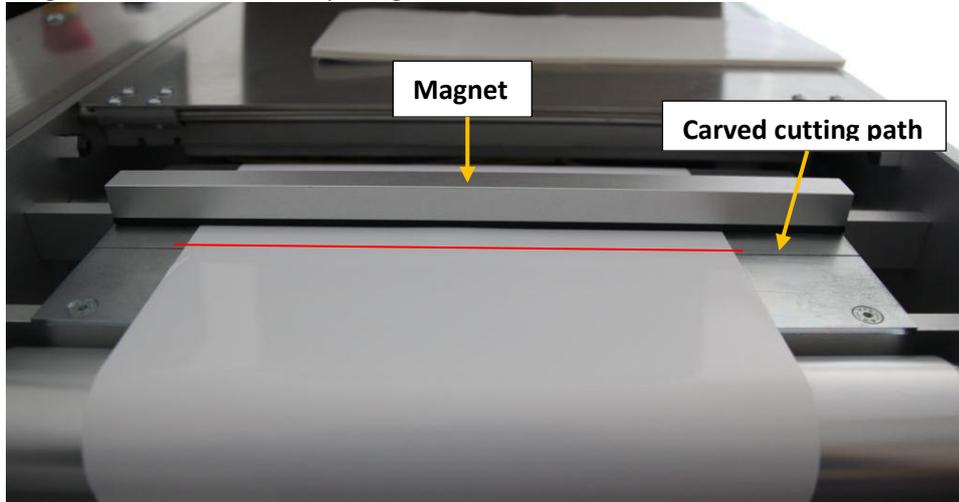


**NOTE:** When leading the label web around the NIP roller, **press 'Home Maintenance Module' button at TrojanTwo -> Handling menu** to gain easier access to the NIP roller. When threading is completed, use the **'Install Maintenance Module button'** in the same menu to move the maintenance module back into position.

- 8 Place an empty roll core on the rewinder. Ensure that it is minimum as wide as the threaded label material.
- 9 Mount the material in direction according to chapter 4.1.2.
- 10 Check and make sure that Unwinder and Rewinder spindles are tightly locked and fix label rolls to the shafts.

### 4.3 Threading using the currently threaded material

- 1 Press 'Reload Web' button at TrojanTwo\Handling menu.
- 2 Place the magnet on far side of the splicing table.

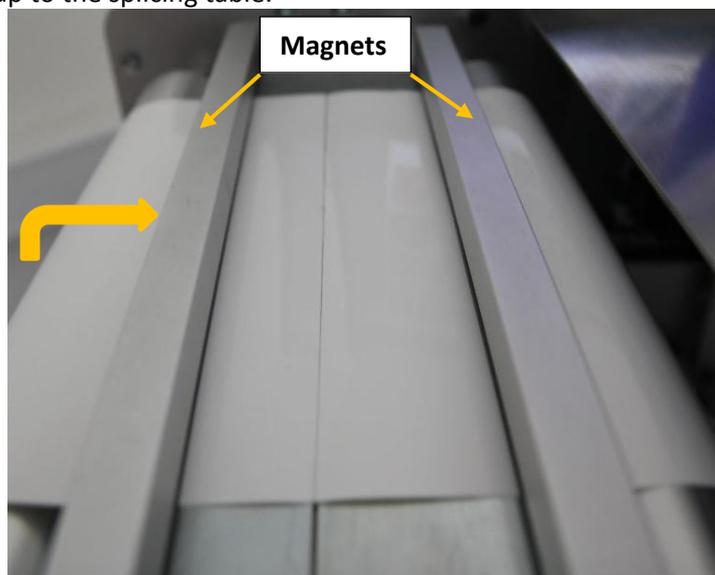


*Magnet on far side of the spicing station.*

- 3 Cut the material on the diagonal, using a knife. Use the carved cutting path on the splicing table to ensure a clean, straight cut.



- 4 Remove the current label roll core from the unwinder.
- 5 Place the chosen material on the unwinder roll according to chapter 4.1.1.
- 6 Draw the material up to the splicing table.

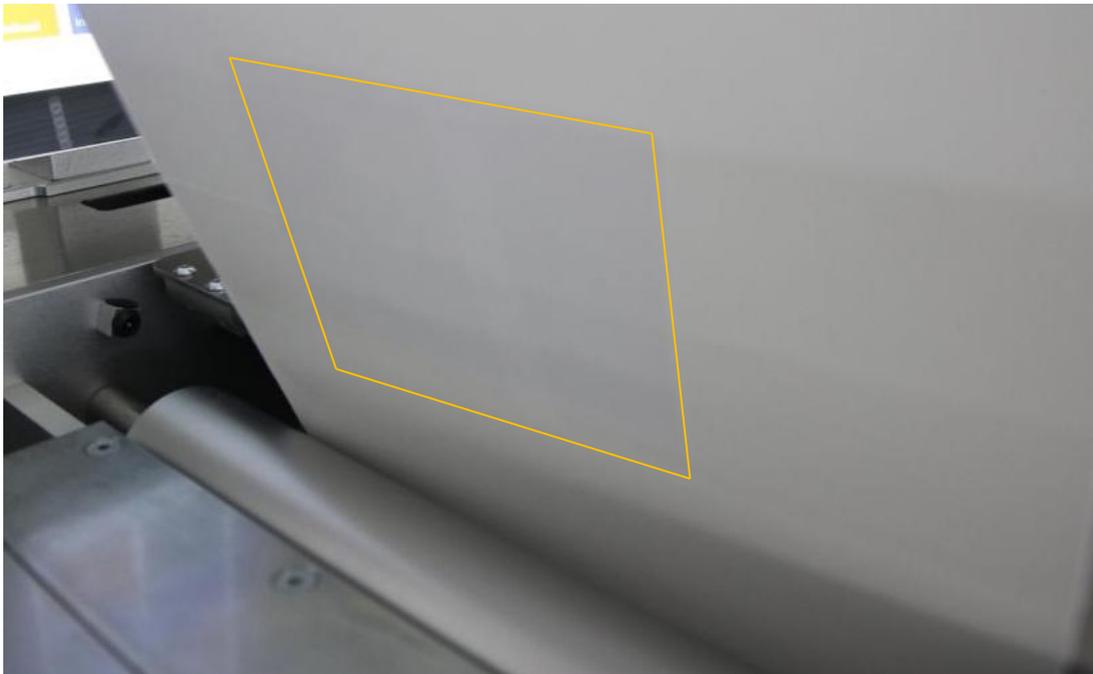


*Label material drawn up to splicing table from unwinder.*

- 7 Fasten materials securely on the splicing table. We recommend that you apply tape to both sides of the material end-points.



*Tape applied on upper side of label material.*



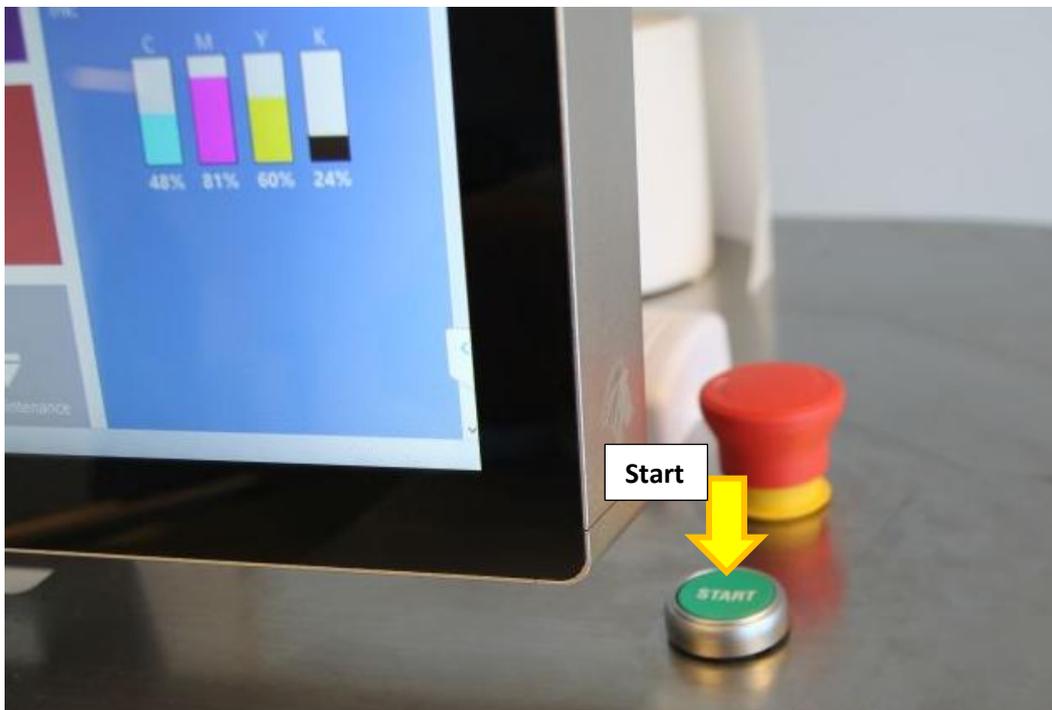
*Tape applied on back side of the label material.*

## 4.4 Adjusting Label Edge Sensor

- The label edge sensor is for adjusting the left edge of the label web physically throughout the whole paperpath for the best rollup performance.
- Adjusting the sensor can be done manually by physically moving the sensor and has immediate effect on the label web's position.
- **As a starting position for the sensor beam it is advised to align the sensor to the left edge of the printhead (99mm from the wall) as Zero position.**
- Further adjustments can be done even during printing as if needed.

### Adjusting method:

1. Setting the unwinder core to default position.
    - When the TrojanTwo is starting up, the unwinder core is automatically sets to the default position when pressing the **'Start'** button.
    - When the TrojanTwo is already up and running, press **'Reset Sidesteer Position'** button at TrojanTwo\Handling menu to set the unwinder core back to default position:
- NOTE:** This function is only active when the web state is **'Not Calibrated'**, otherwise the button is grey and cannot be pressed.

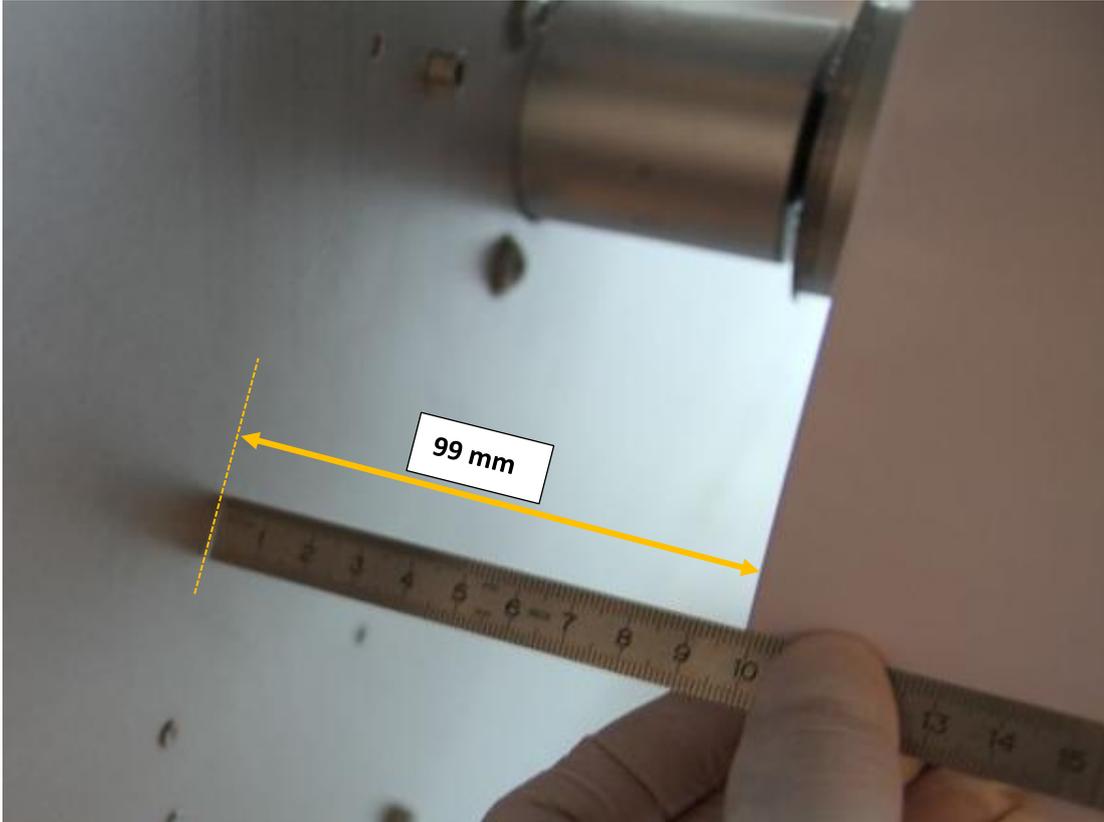


Start button

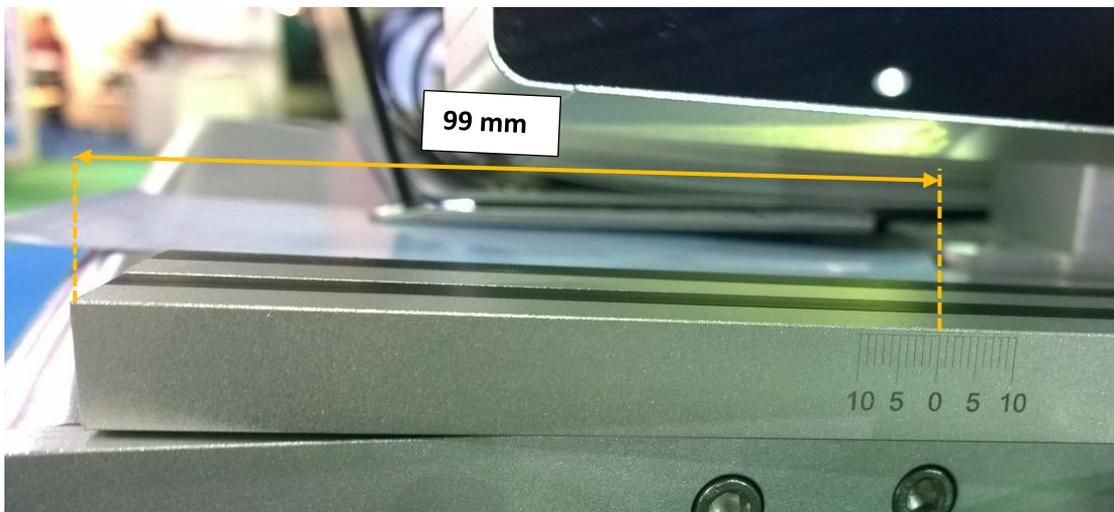


Reset Sidesteer Position button (TrojanTwo -> Handling menu)

2. Make sure that left edge of the label roll is exactly 99 mm (3.9 inches) away from the wall (printhead left printing edge) then tighten label roll on unwinder core with the unwinder spindle:

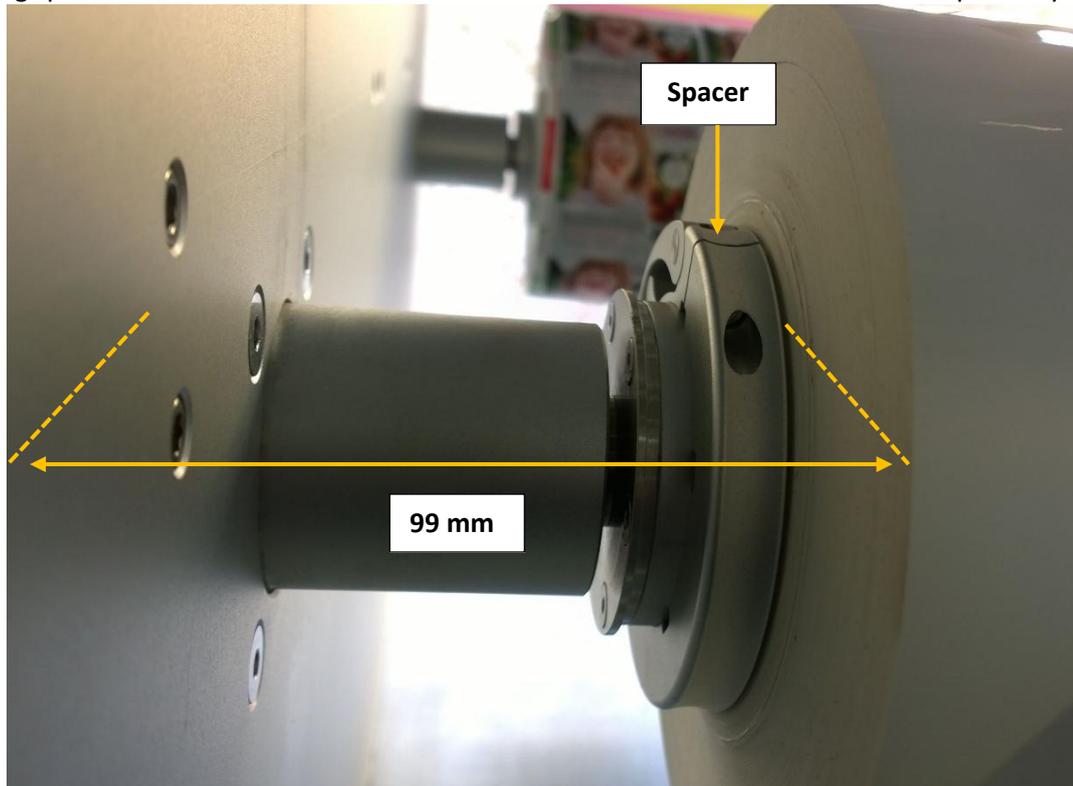


**NOTE:** Use the magnet accessory which has a metric scale to align media edge to the wall.

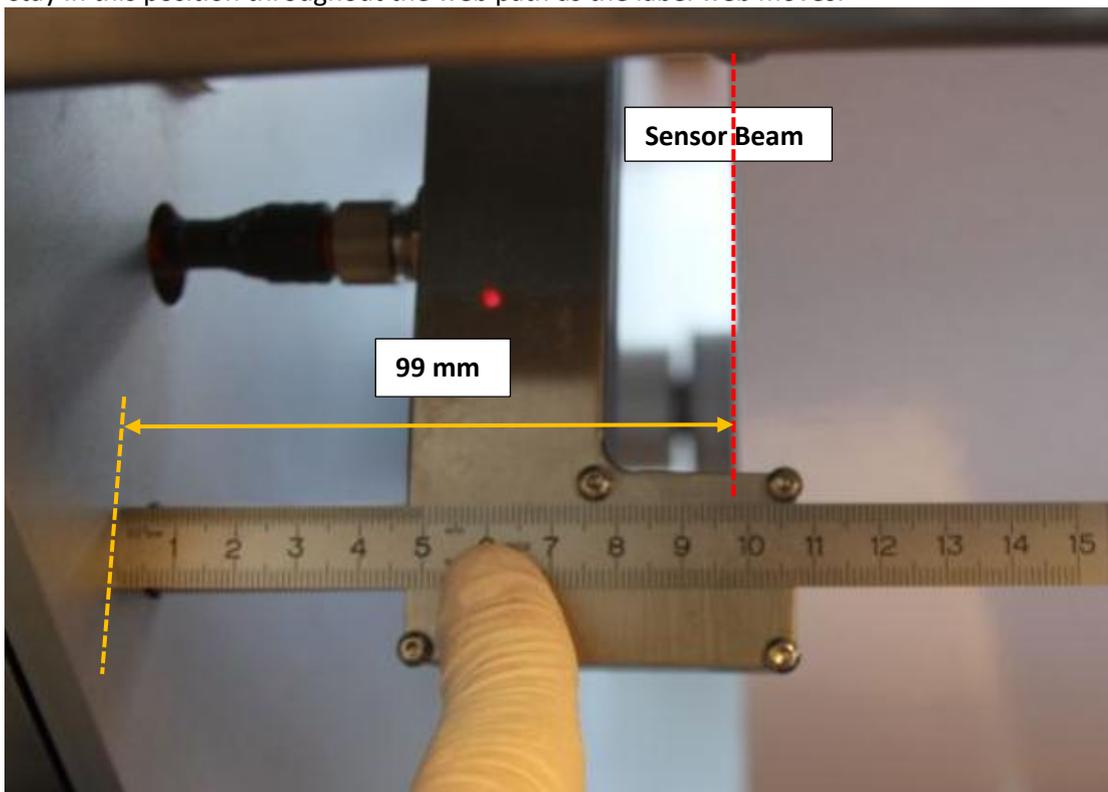


*Metric scale on magnet bar*

3. Setting spacer on unwinder core to 99 mm from wall to be able to load the label roll precisely

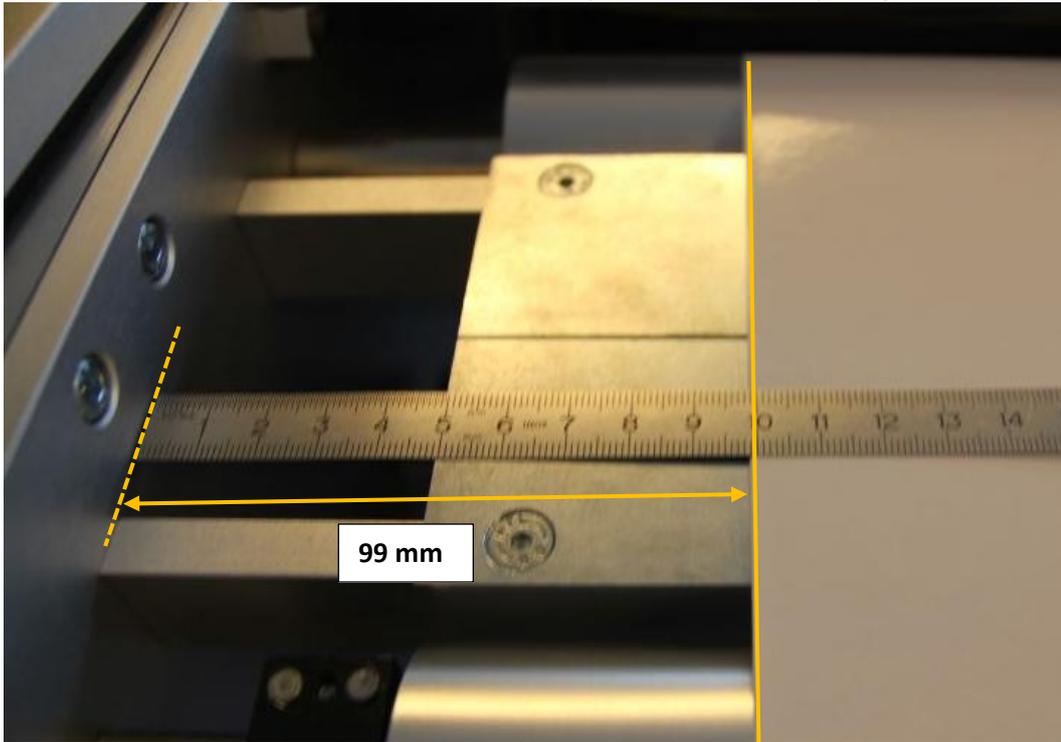


4. Adjust sensor beam to 99 mm (3.9 inches) from the wall to ensure the left edge of the label web will stay in this position throughout the web path as the label web moves:

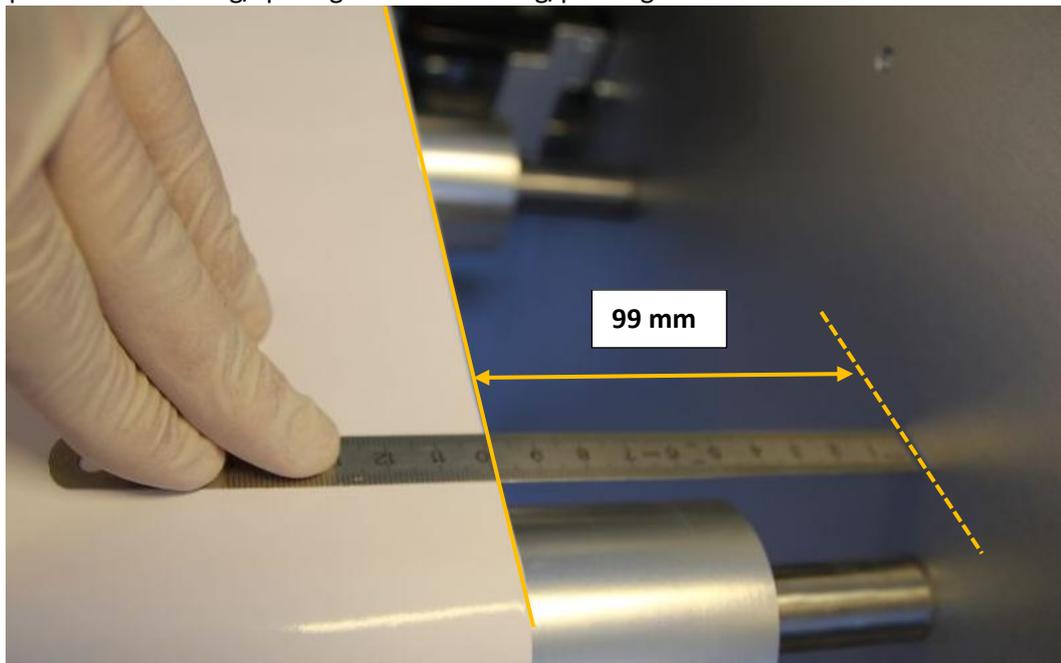


*Led on sensor turns from green to red when sensor beam reaches the left edge of the label web.*

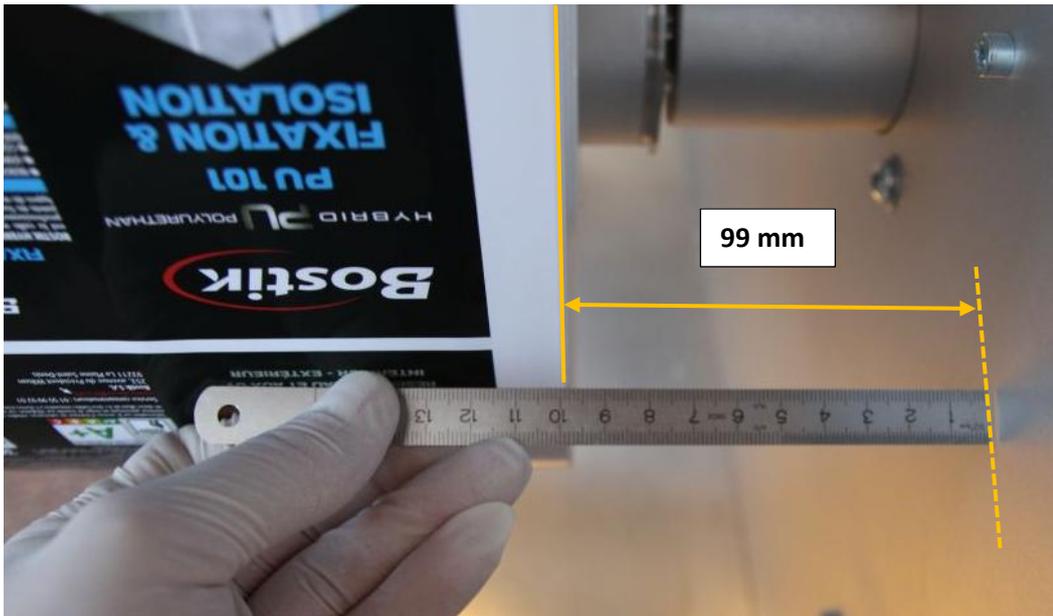
5. Align label web left edge to be 99mm (3.9 inches) away from the wall at splicing table:



6. Checkpoints after loading/splicing web and moving/printing on label web:



*Checkpoint after print engine.*



*Checkpoint at Rewinder core.*

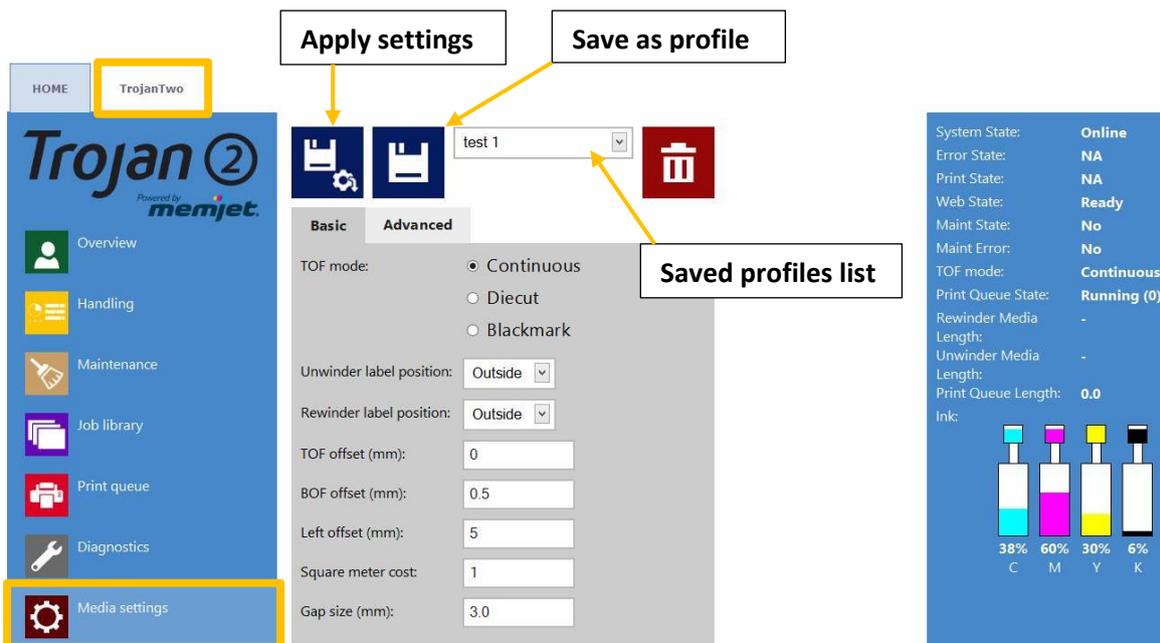
## 5 Calibrate the web path (paper)

It is assumed that the label rolls are placed correctly and the machine is threaded with media.

1. Web state is currently: "Not calibrated".

Web State: **Not calibrated**

2. Select the TrojanTwo tab.
3. Select 'Media settings' menu.
4. From the profile drop down select the correct Media Profile that fits the paper or create a profile that matches the material and print job.



The screenshot shows the Trojan 2 web interface. The 'TrojanTwo' tab is selected. The 'Media settings' menu item is highlighted. The 'Basic' tab is active, showing various configuration options. A 'Saved profiles list' dropdown menu is open, showing a profile named 'test 1'. The 'Apply settings' and 'Save as profile' buttons are also visible.

**System State:** Online  
**Error State:** NA  
**Print State:** NA  
**Web State:** Ready  
**Maint State:** No  
**Maint Error:** No  
**TOF mode:** Continuous  
**Print Queue State:** Running (0)  
**Rewinder Media Length:** -  
**Unwinder Media Length:** -  
**Print Queue Length:** 0.0  
**Ink:**  
 C: 38%  
 M: 60%  
 Y: 30%  
 K: 6%

5. Press the apply settings button.
6. Go to TrojanTwo\Handling menu.
7. Press 'Calibrate web' button.
8. The calibration is finished when "Web State" status reads "Ready".

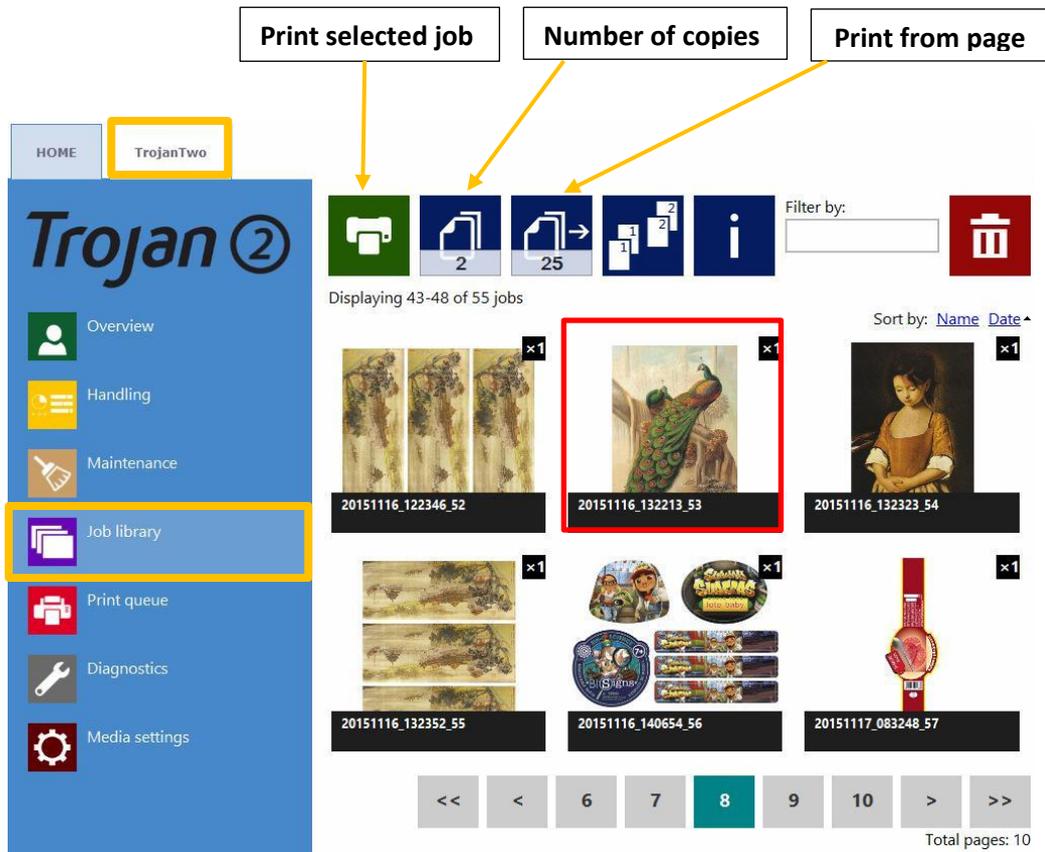


The screenshot shows the Trojan 2 web interface. The 'TrojanTwo' tab is selected. The 'Handling' menu is highlighted. The 'Calibrate Web' button is visible. The 'Web State' status is now 'Ready'.

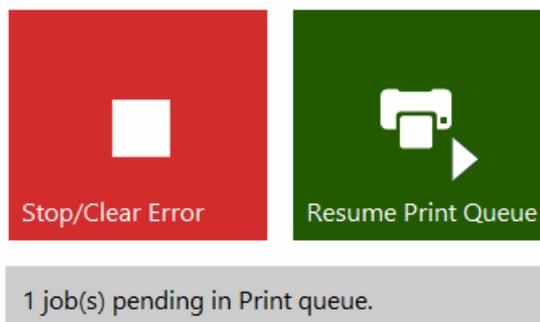
**System State:** Online  
**Error State:** NA  
**Print State:** NA  
**Web State:** Ready  
**Maint State:** No  
**Maint Error:** No  
**TOF mode:** Continuous  
**Print Queue State:** Running (0)  
**Rewinder Media Length:** -  
**Unwinder Media Length:** -  
**Print Queue Length:** 0.0  
**Ink:**  
 C: 38%  
 M: 60%  
 Y: 30%  
 K: 6%

## 6 Select and queue print/start job

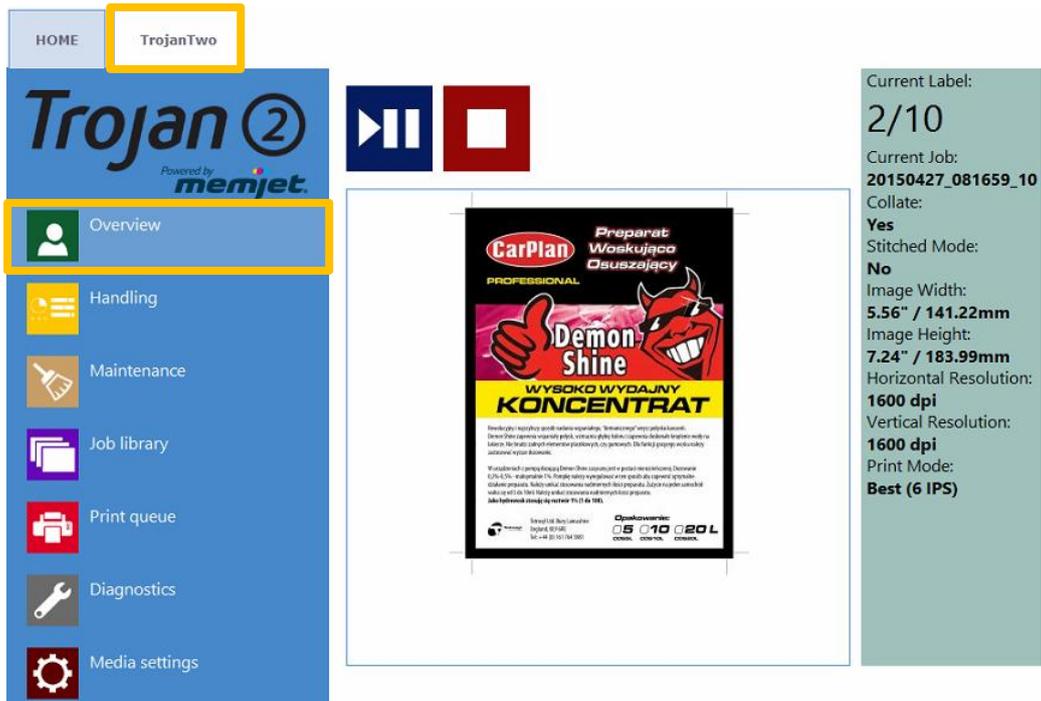
1. Select "Job library" (See section 14.3.3 for full Job Library description)



2. Select a job by pressing the image, the selection is indicated with a red box around the selection.
3. Choose number of copies or from which page to print, by pressing the 'Number of Copies' button or the 'Print from Page' button (printing job from a certain page number).
4. Send print to queue by pressing the green print button
5. If the Print Queue is paused, press the resume button on the overview screen. If the queue is active the print job will start immediately, and print job progress is viewed in the "Overview"-screen, which is automatically displayed when starting a print.



*Print queue is paused. Press Resume Print Queue button to start printing.*

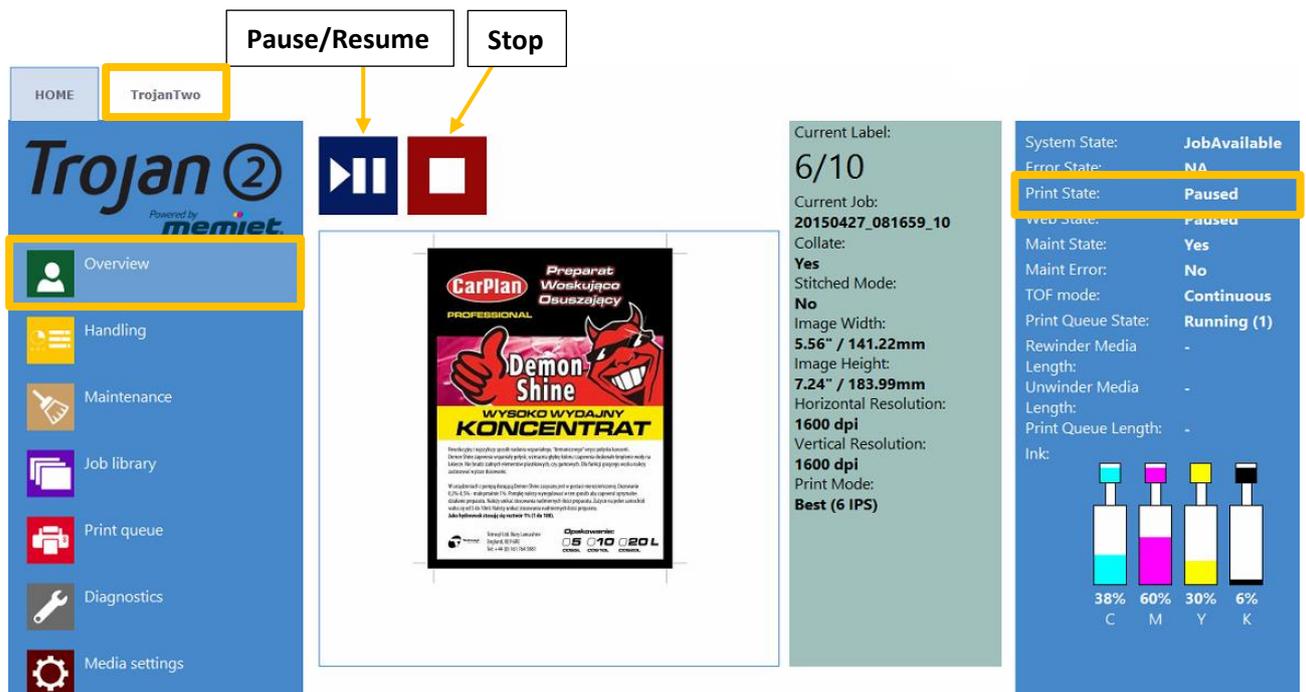


Print job in progress in overview menu.

## 7 Pause, resume or stop print job

Pause, resume and stop of print job is done from the TrojanTwo tab/Overview menu.

- **Pause:** Press the Pause/Resume button. Print state will change to “Paused”

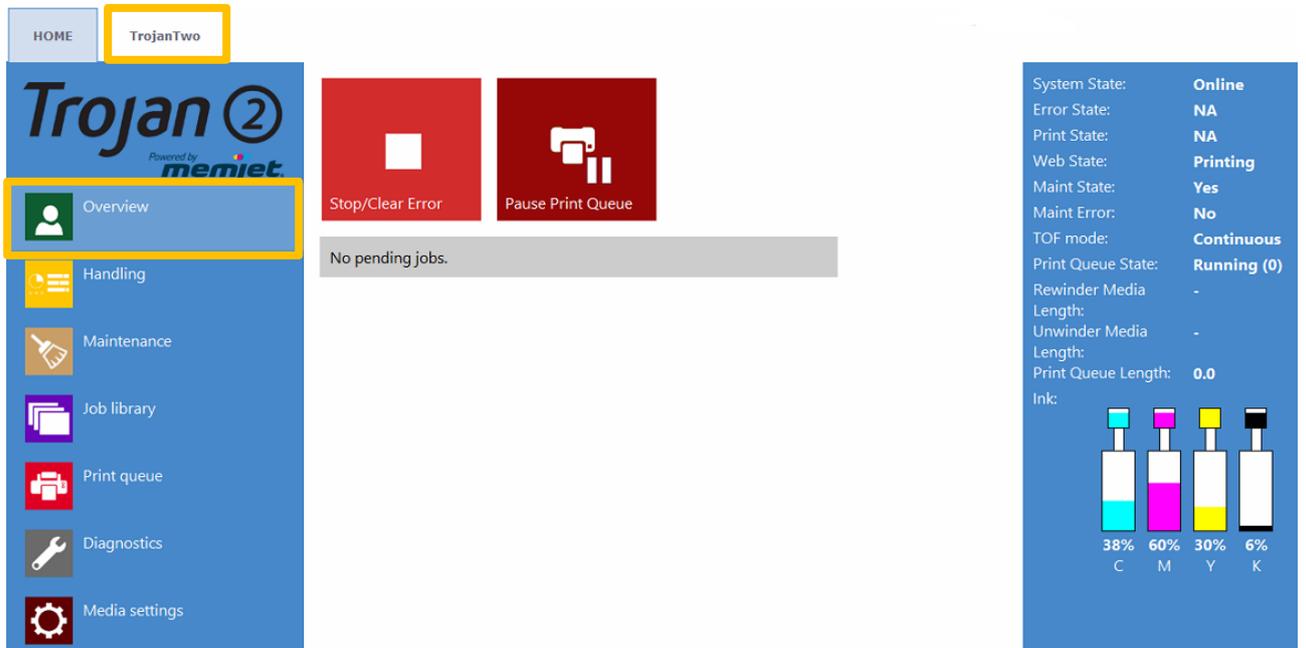


Print job paused

- **Resume of paused job:** Press the Pause/Resume button once more. Print state will change to “Printing”.

System State:	<b>JobAvailable</b>
Error State:	<b>NA</b>
Print State:	<b>Printing</b>
Web State:	<b>Printing</b>
Maint State:	<b>No</b>
Maint Error:	<b>No</b>
TOF mode:	<b>Continuous</b>
Print Queue State:	<b>Running (1)</b>

- **Stop:** Press the button. Print state will change to “NA” and current print job is canceled and removed from print queue.



The screenshot shows the Trojan Two control panel interface. On the left is a navigation menu with options: Overview, Handling, Maintenance, Job library, Print queue, Diagnostics, and Media settings. The 'Overview' option is highlighted. In the center, there are two large buttons: 'Stop/Clear Error' (red) and 'Pause Print Queue' (dark red). Below these buttons, a grey bar displays the text 'No pending jobs.' On the right side, a blue panel displays system status information:

System State:	<b>Online</b>
Error State:	<b>NA</b>
Print State:	<b>NA</b>
Web State:	<b>Printing</b>
Maint State:	<b>Yes</b>
Maint Error:	<b>No</b>
TOF mode:	<b>Continuous</b>
Print Queue State:	<b>Running (0)</b>
Rewinder Media Length:	-
Unwinder Media Length:	-
Print Queue Length:	<b>0.0</b>

Below the status table is an 'Ink' section with four vertical bars representing ink levels for Cyan (C), Magenta (M), Yellow (Y), and Black (K):

C	M	Y	K
38%	60%	30%	6%

*Print job canceled*

**NOTE:** NA = Not Available

## 8 Moving the web

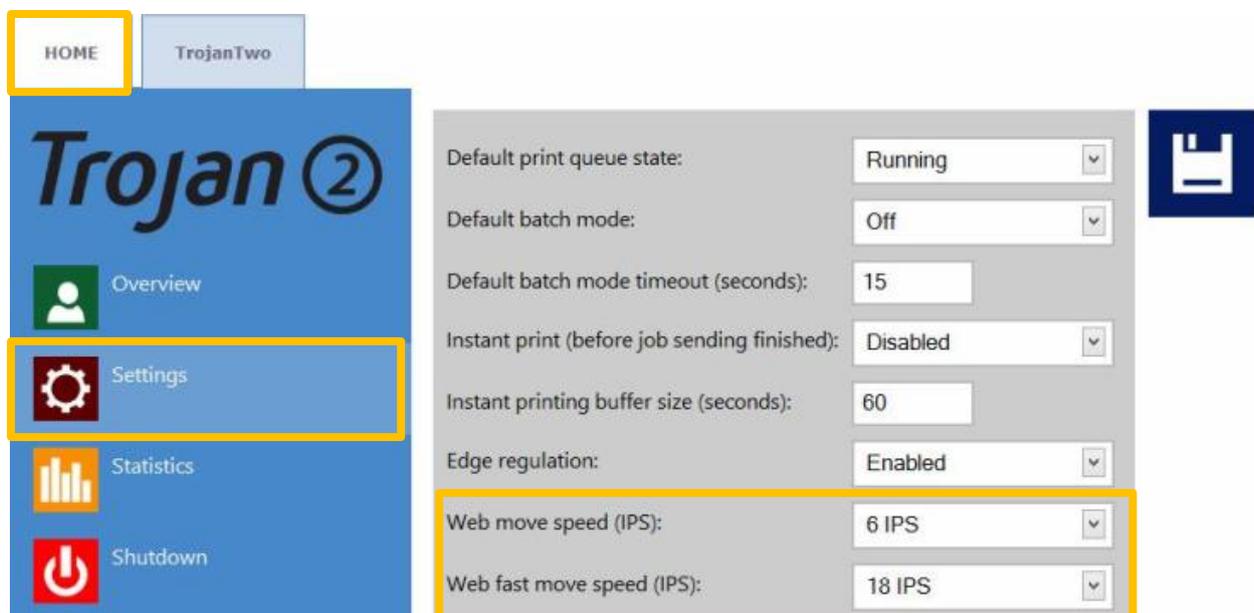
It is possible to move the web backward and forward at two speeds. Go to TrojanTwo -> Handling menu and select speed and direction by selecting one of the four directional/speed buttons highlighted below. When a directional button is pressed, the four buttons are replaced with one single stop button. Pressing the button will stop the web moving (See section 13.3.2 for Handling menu).



*Moving the label web from Handling menu*

- **Setting the speed for moving the web:**

The movement speed of Forward/Backward Web and Fast Forward/Backward Web buttons can be set by the user at **HOME -> Settings -> Printing Preferences** menu:



## 9 Changing label material

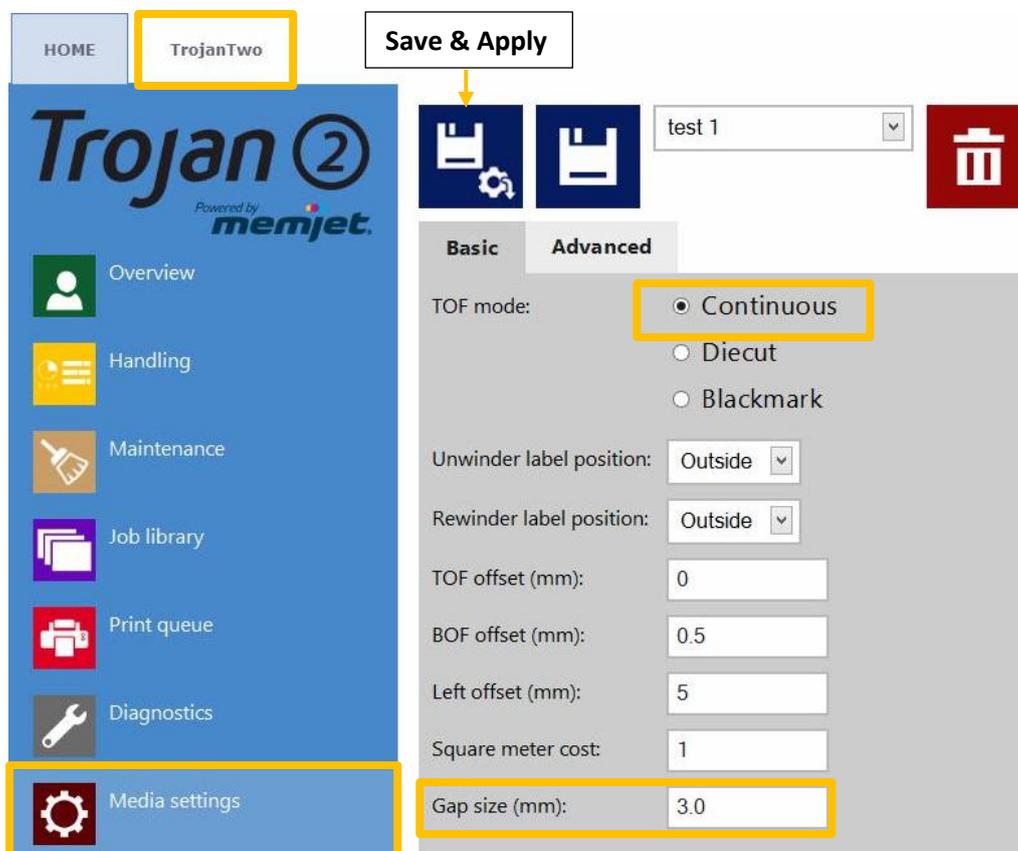
The process of changing the material is described in chapter 4 “Threading the machine”.

## 10 Printing modes

The TrojanTwo press supports three printing modes: **Continuous**, **Diecut** or **Blackmark** depending on the type of label material applied.

### 10.1 Continuous printing mode

- To select continuous printing mode go to **TrojanTwo -> Media Settings menu** and choose **‘Continuous’** as TOF mode (TOF = Top of Form) to describe the top of form algorithm (how to detect the top of the next label). Press **‘Save & Apply’** button to apply changes.
- Continuous label material has no gaps or blackmarks between the labels.
- In continuous mode the label gap/ blackmark sensor is ignored.
- The **gap between the labels** can be set at **TrojanTwo -> Media settings menu**.



**IMPORTANT:** Because of inter-page actions the printed labels have to have:

- ✎ **Minimum 2.2 mm gap at 6IPS mode**
- ✎ **Minimum 3 mm gap at 12IPS mode.**
- ✎ **Maximum gap size is 65 mm**

**IMPORTANT:** Setting label gap outside the minimum and maximum range can result to label skipping or enormously high label gaps.

## 10.2 Diecut printing mode

- To select diecut printing mode go to **TrojanTwo -> Media Settings menu** and choose **'Diecut'** as TOF mode (TOF = Top of Form) to describe the top of form algorithm (how to detect the top of the next label). Press **'Save & Apply'** button to apply changes.
- Diecut label material has precutted gaps between the labels.
- **In Diecut mode the label gap/ blackmark sensor has to be calibrated to each applied label material.**



### 🔧 Calibrating the label gap sensor:



*LERC10 label eye sensor*

#### **AUTOSET**

Simply put the gap in view and push and hold the AUTOSET button for 1 second. The AUTOSET LED will remain on when the setup is complete. If the setup is not adequate, the AUTOSET and Output LEDs will flash 3 times. This may indicate a backing material that is too dense to penetrate.

#### **UP/DN Adjustments**

The Label Eye sensor has the ability to "tweak" the setup incrementally. Simply momentarily tap the AUTOSET (UP ^) button, or LT/DK (DN v) button to adjust the sensor to a more stable and repeatable setting. This feature is used when the AUTOSET does not provide the optimum setting initially.

Example: If the label backing material is inconsistent, or the label material has more translucent areas coming into view, then the sensor may need to be adjusted slightly for this rare occasion. Having the ability to fine tune the sensor for changing conditions provides a solution that is easy to implement and simple to understand.

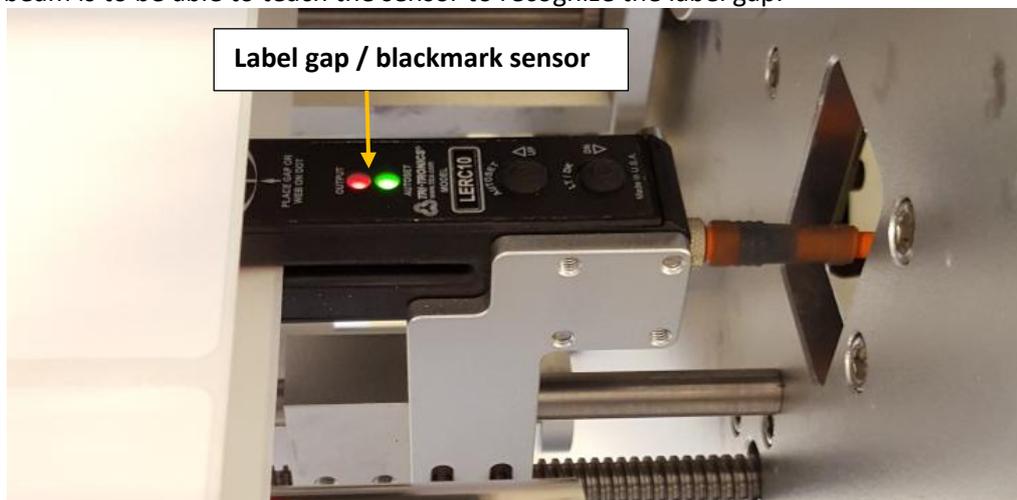
#### **Light/Dark**

Push the LT/DK button to change output from Dark On to Light On...output turns on when label in view, or output turns on when gap in view.

1. Use the wheel on the front to move the sensor over the label material

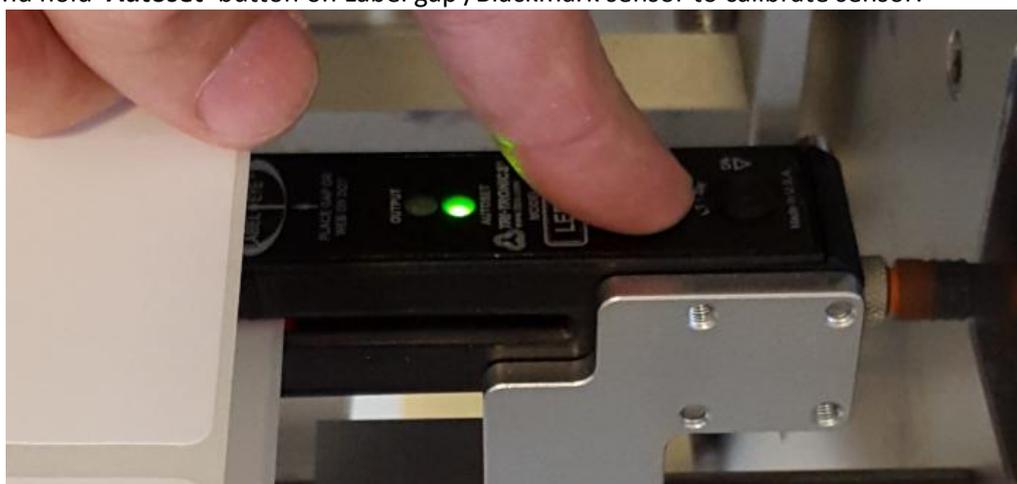


2. Move the sensor above a label gap exactly or peel off a label from the liner temporarily where the sensor beam is to be able to teach the sensor to recognize the label gap.



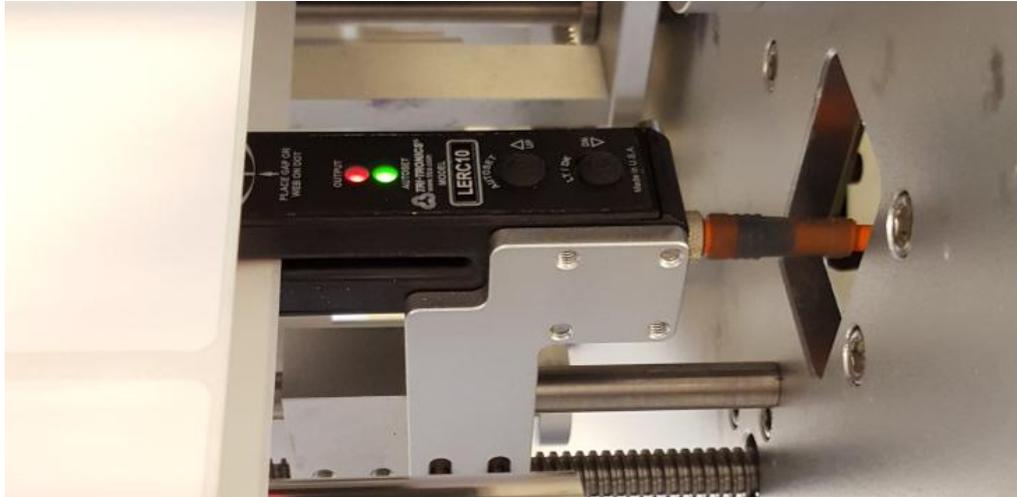
*If label gap is already recognized by the sensor then only the green LED will be lit.  
Otherwise sensor needs to be calibrated to recognize the certain gap density.*

3. Press and hold **'Autoset'** button on Label gap /Blackmark sensor to calibrate sensor:



*Sensor calibrated to recognize label gap.*

When the button is pressed the green LED will flash fast and when sensor is adjusted the red LED will go off and green LED will stay lit constantly.



When moving a label (not gap) into the sensor beam the red LED will go on indicating that the sensor can differentiate between gap and label.

**IMPORTANT:** Because of inter-page actions the printed labels have to have:

- ☞ **Minimum 2.2 mm gap at 6IPS mode**
- ☞ **Minimum 3 mm gap at 12IPS mode.**
- ☞ **Maximum gap size is 65 mm**

**IMPORTANT:** Setting label gap outside the minimum and maximum range can result to label skipping, missed TOF error message or enormously high label gaps.

### 10.3 Blackmark printing mode

- To select blackmark printing mode go to **TrojanTwo -> Media Settings menu** and choose **'Blackmark'** as TOF mode (TOF = Top of Form) to describe the top of form algorithm (how to detect the top of the next label). Press **'Save & Apply'** button to apply changes.
- Blackmarked label material has black registration marks called 'Blackmarks' preprinted between the labels.
- **In Blackmark mode the label gap/ blackmark sensor has to be calibrated to each applied label material.**



#### 🔧 Calibrating the label gap / blackmark sensor:



*LERC10 label eye sensor*

#### **AUTOSET**

Simply put the gap in view and push and hold the AUTOSET button for 1 second. The AUTOSET LED will remain on when the setup is complete. If the setup is not adequate, the AUTOSET and Output LEDs will flash 3 times. This may indicate a backing material that is too dense to penetrate.

#### **UP/DN Adjustments**

The Label Eye sensor has the ability to "tweak" the setup incrementally. Simply momentarily tap the AUTOSET (UP ^) button, or LT/DK (DN v) button to adjust the sensor to a more stable and repeatable setting. This feature is used when the AUTOSET does not provide the optimum setting initially.

Example: If the label backing material is inconsistent, or the label material has more translucent areas coming into view, then the sensor may need to be adjusted slightly for this rare occasion. Having the ability to fine tune the sensor for changing conditions provides a solution that is easy to implement and simple to understand.

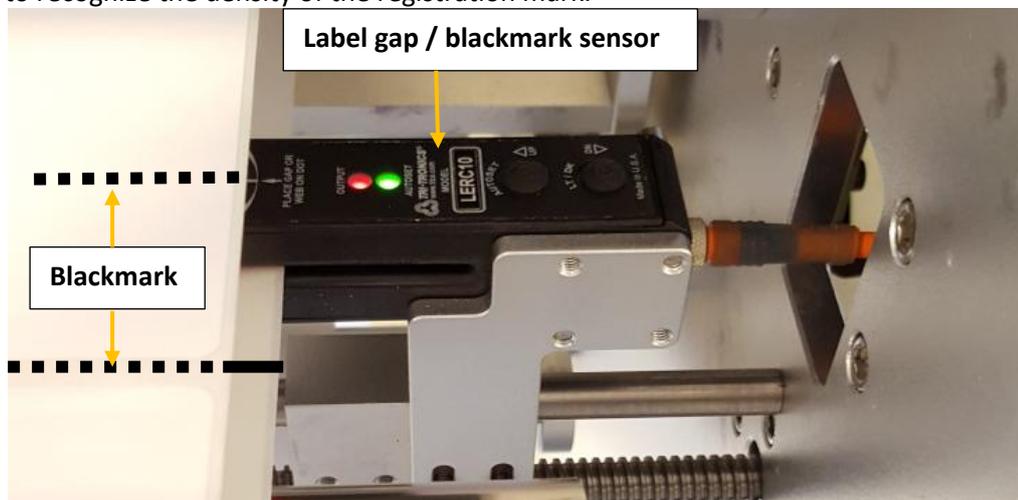
#### **Light/Dark**

Push the LT/DK button to change output from Dark On to Light On...output turns on when label in view, or output turns on when gap in view.

1. Use the wheel on the front to move the sensor over the label material

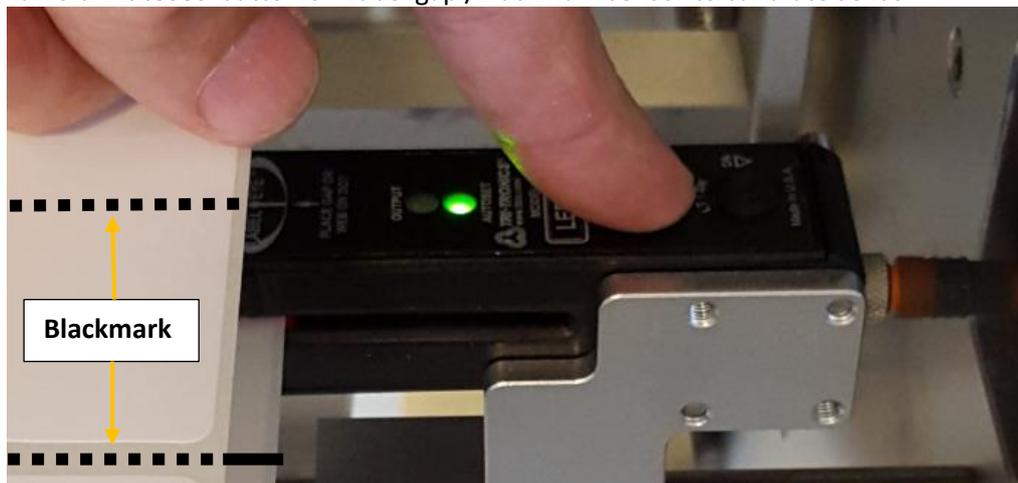


2. Move the sensor above a blackmark exactly where the sensor beam is to be able to teach the sensor to recognize the density of the registration mark.



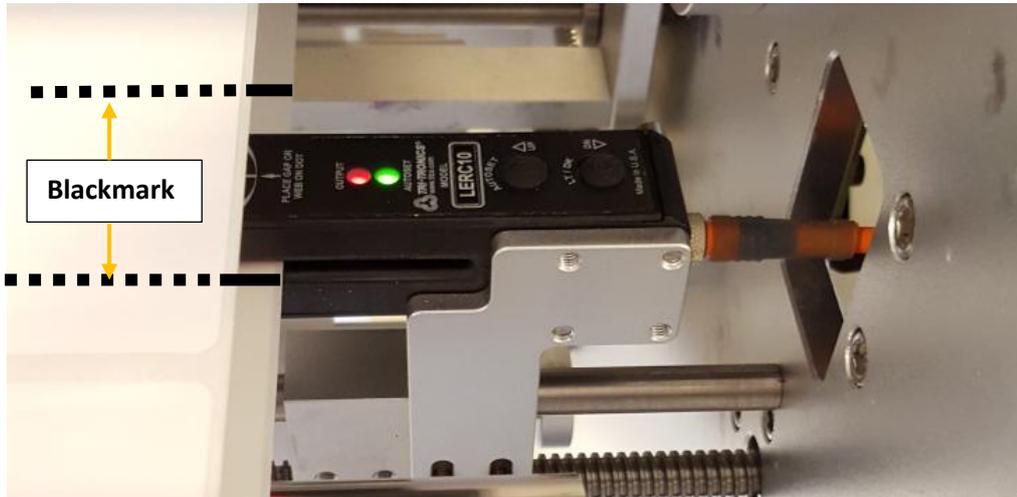
*If blackmark is already recognized by the sensor then only the green LED will be lit. Otherwise sensor needs to be calibrated to recognize the certain blackmark density.*

3. Press and hold 'Autoset' button on Label gap /Blackmark sensor to calibrate sensor:



*Sensor calibrated to recognize black registration mark.*

When the button is pressed the green LED will flash fast and when sensor is adjusted the red LED will go off and green LED will stay lit constantly.



*Note: The picture is an illustration only, the actual label material is diecut on the picture*

When moving a label (not blackmark) into the sensor beam the red LED will go on indicating that the sensor can differentiate between blackmark and label.

## 10.4 Gap size and speeds

The minimum gap size and speed has a dependency due to the image processing in the print head. Therefore, we recommend these minimum gap size settings:

Speed	Minimum gap size
6 inches per second / 9 meters per minute	2.2 mm
12 inches per second / 18 meters per minute	3 mm

**NOTE:** the complexity of the image may also influence this. A very simple bar code image may allow for shorter gap sizes.

TrojanTwo will display an error in the 'Error'-field: 'Missed TOF – datapath underrun' if this occurs.

## 11 Shutting down the TrojanTwo press

- Shut down procedure:
  1. Go to HOME tab
  2. Press 'Shut down' menu
  3. Press the big red 'Shutdown TrojanController' button
  4. Reconfirm by selecting ok.
  5. Green info button is displayed, no need to press ok on that button

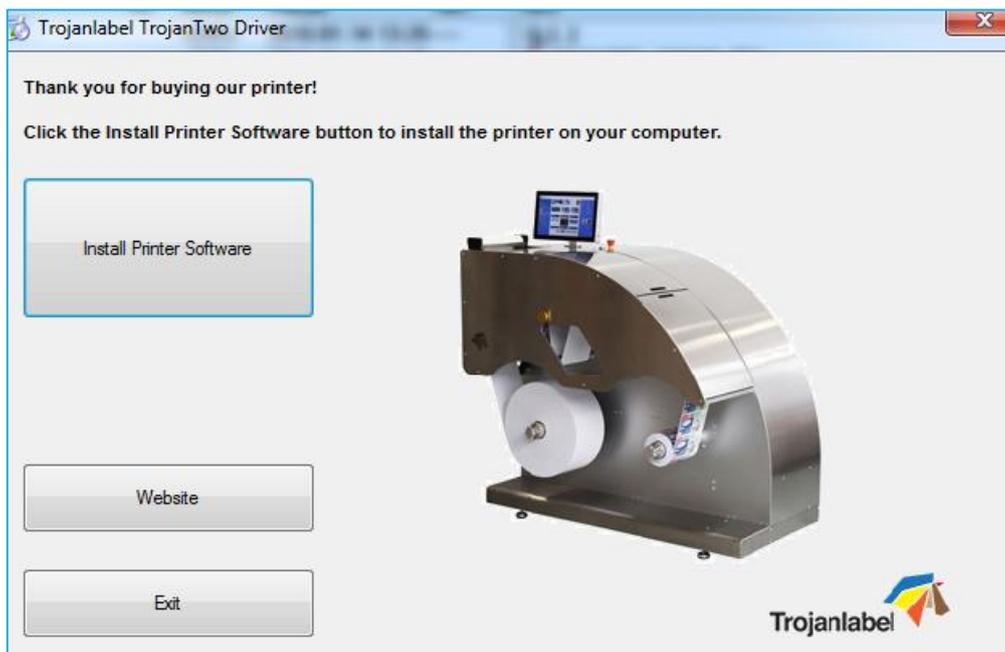


6. After shutting down the machine, turn off the power switch at the back of the machine to cut down power from the Power Supply Units.

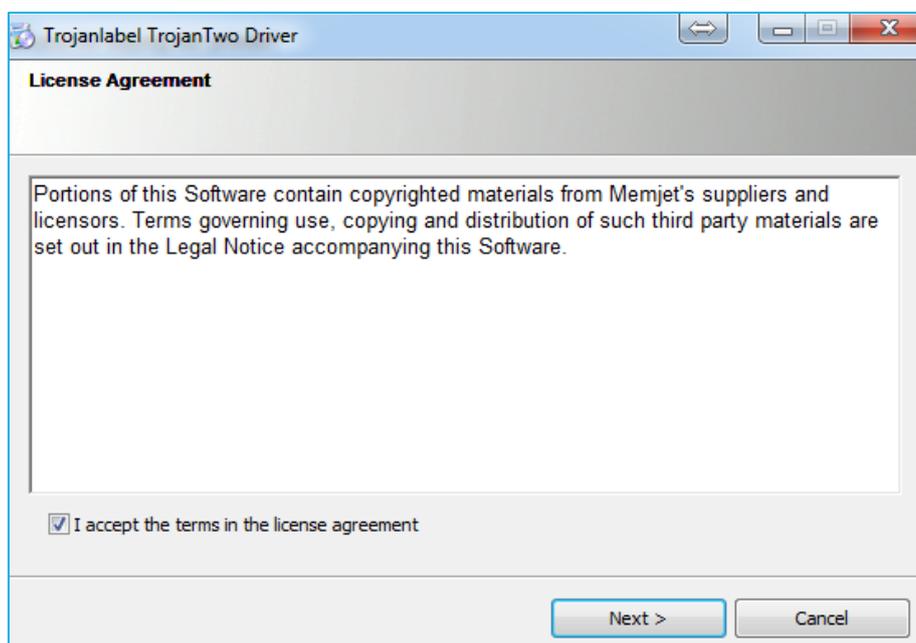
## 12 Driver installation/features

### 12.1 Driver installation

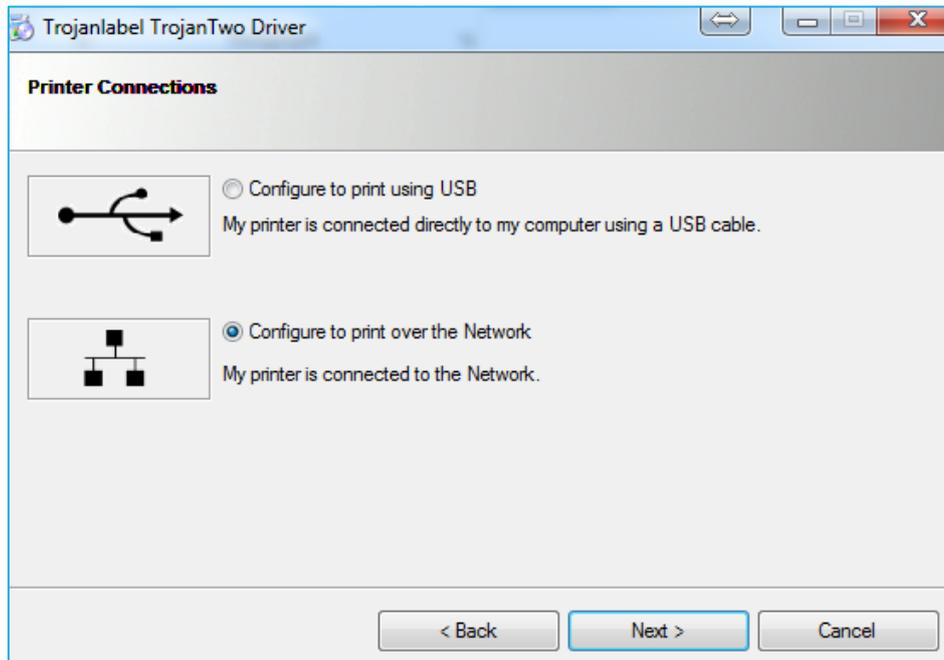
- The TrojanTwo driver can be found on the USB stick supplied with the TrojanTwo package
- It is available for downloading on the Internet:  
[www.trojanextranet.com/media/50938/win\\_driver\\_13-trojanlabel-trojantwo-sir\\_r13.1-18dec2014.zip](http://www.trojanextranet.com/media/50938/win_driver_13-trojanlabel-trojantwo-sir_r13.1-18dec2014.zip)
- Open TrojanTwo Driver installer on user's PC, run **WinSetup.exe** and choose 'Install Printer Software'



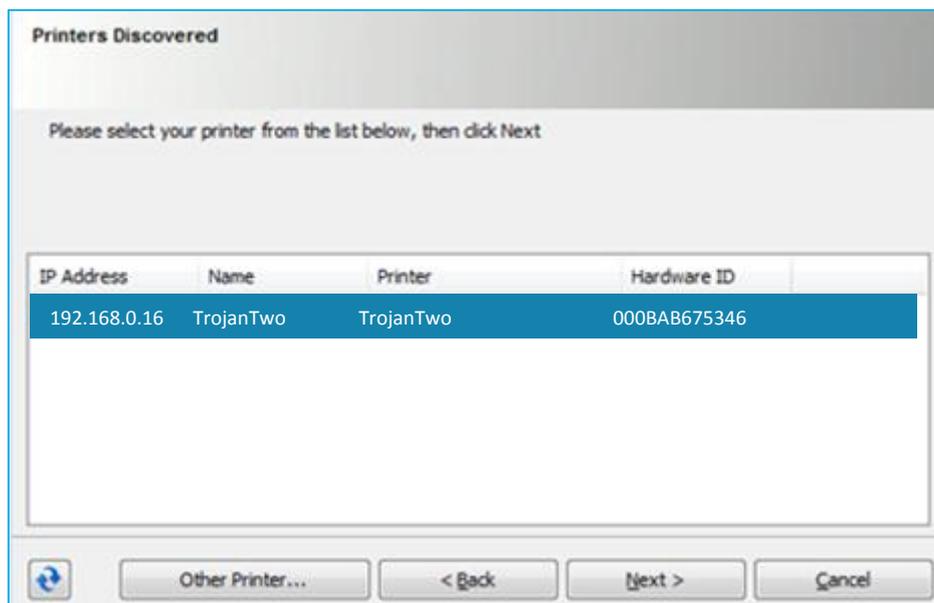
- Select '**I accept the terms in the license agreement**' checkbox and press '**Next**' button to continue



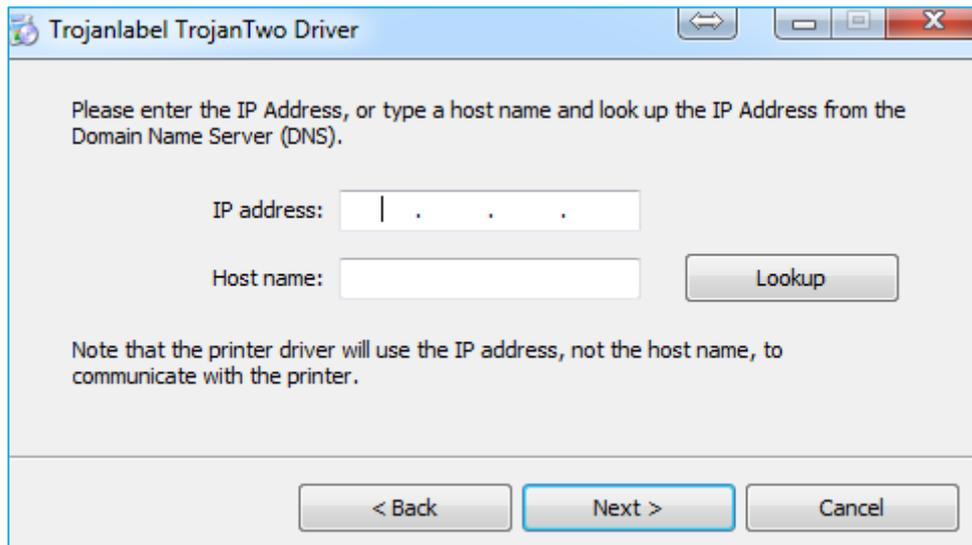
- Select **'Configure to print over the Network'**  
**NOTE:** USB printing is not supported for the TrojanTwo press.



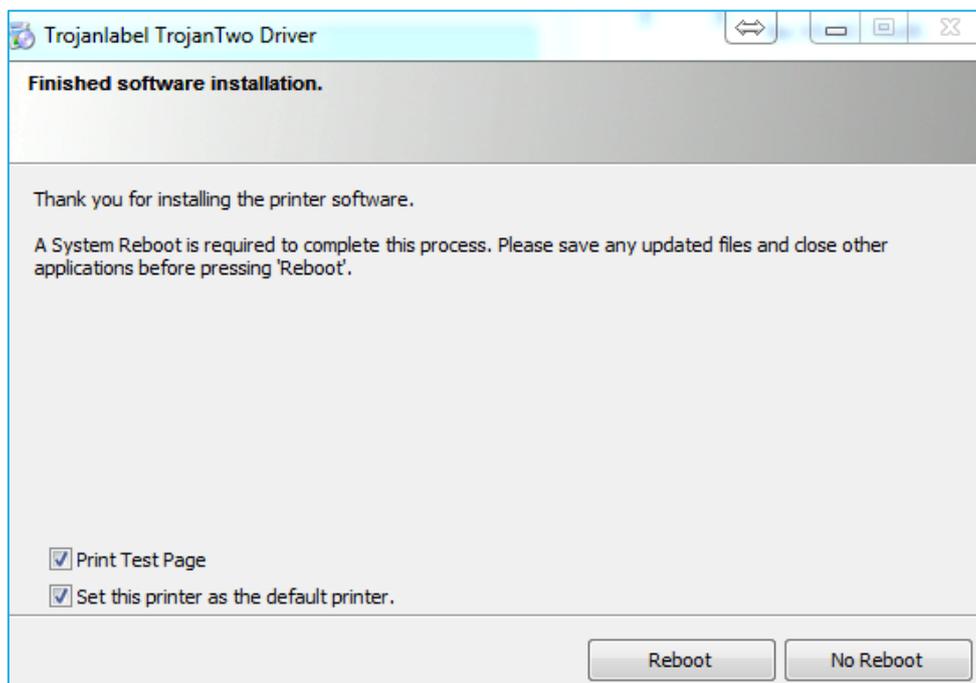
- During the setup process, the installer will detect the TrojanTwo press on the network. Select the detected TrojanTwo and press **'Next'** button to continue installation.



- Depending on Local Network policy there might be occasions when the auto detection of the TrojanTwo press is not working. This case type the IP address of the TrojanTwo manually.  
**NOTE:** Current IP address of the TrojanTwo press can be checked on the touch screen at **HOME -> Settings -> Network** menu.

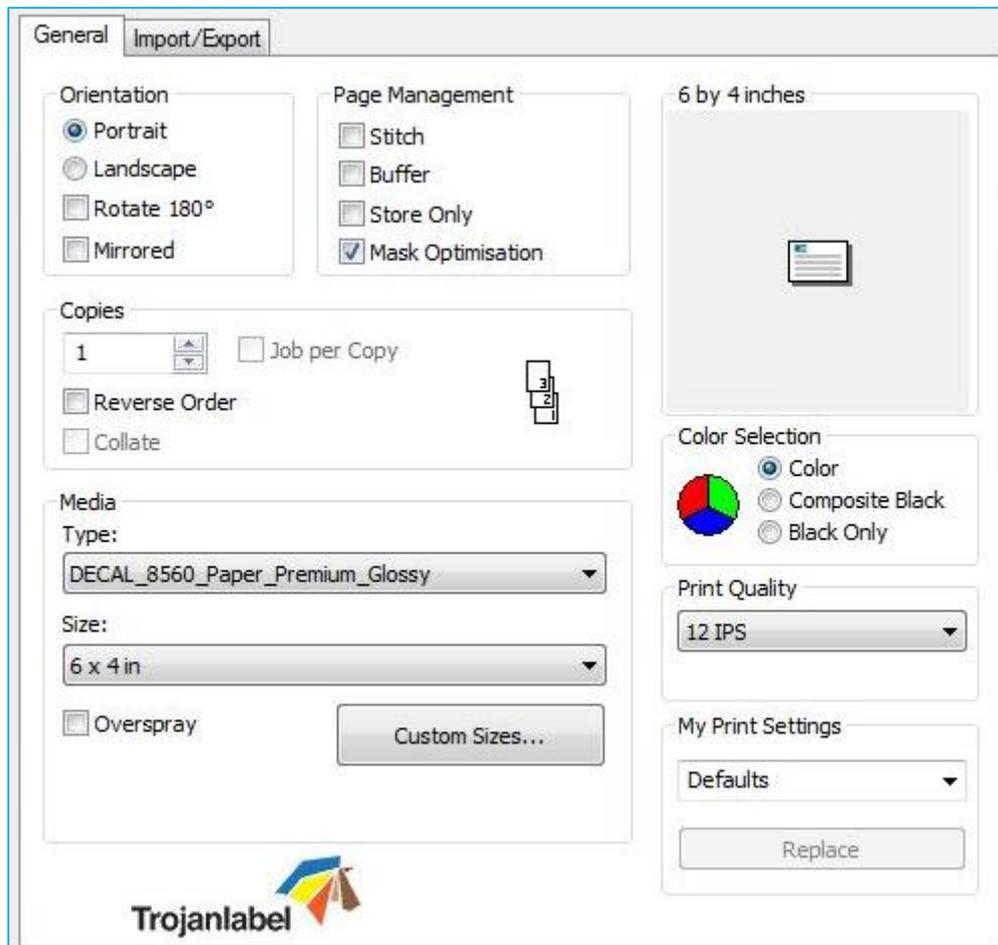


- You might be asked a couple of times (depending on Microsoft Windows OS version) to give permission to proceed with setup. Press 'Yes' or 'Unblock' each time and wait until the progress bar finishes the installation.
- When the installation is **finished** you might need to restart your PC to make sure that the installation process made all necessary changes in your operating system.
- Print test page** (test page is the regular Microsoft Windows test page set to A4 size cutsheet). Unselect if you do not want to print this out.



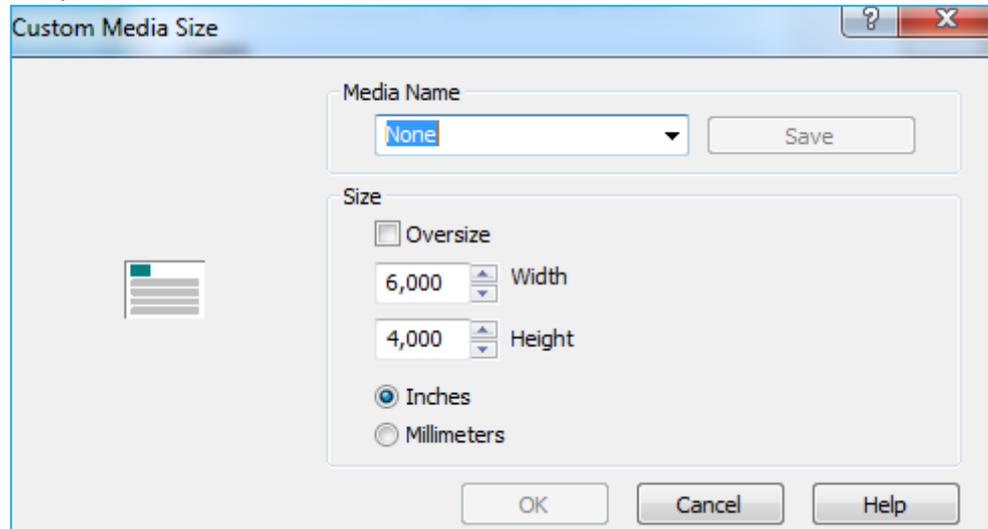
## 12.2 Driver features and functions

- The driver is compatible with WinXP, Vista, Win7, Win8 and Win10 (both 32bit and 64bit versions).
- The TrojanTwo press can print from any software which is able to print from Microsoft Windows environment.
- Handles ICM color profiles (provided by Trojanlabel).
- **General driver settings:**



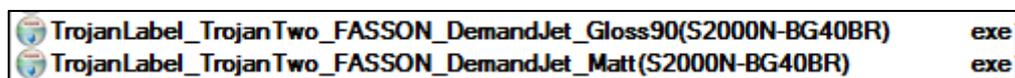
- ☞ **Orientation:** Adopts software settings (like Adobe Reader)
- ☞ **Copies:** Number of copies times the number of labels in actual print job
- ☞ **My Print Settings:** Can create and load profiles from settings

- ☂ **Media:**
  - **Type:** List of available color profiles
  - **Size:** predefined size from the list or custom size

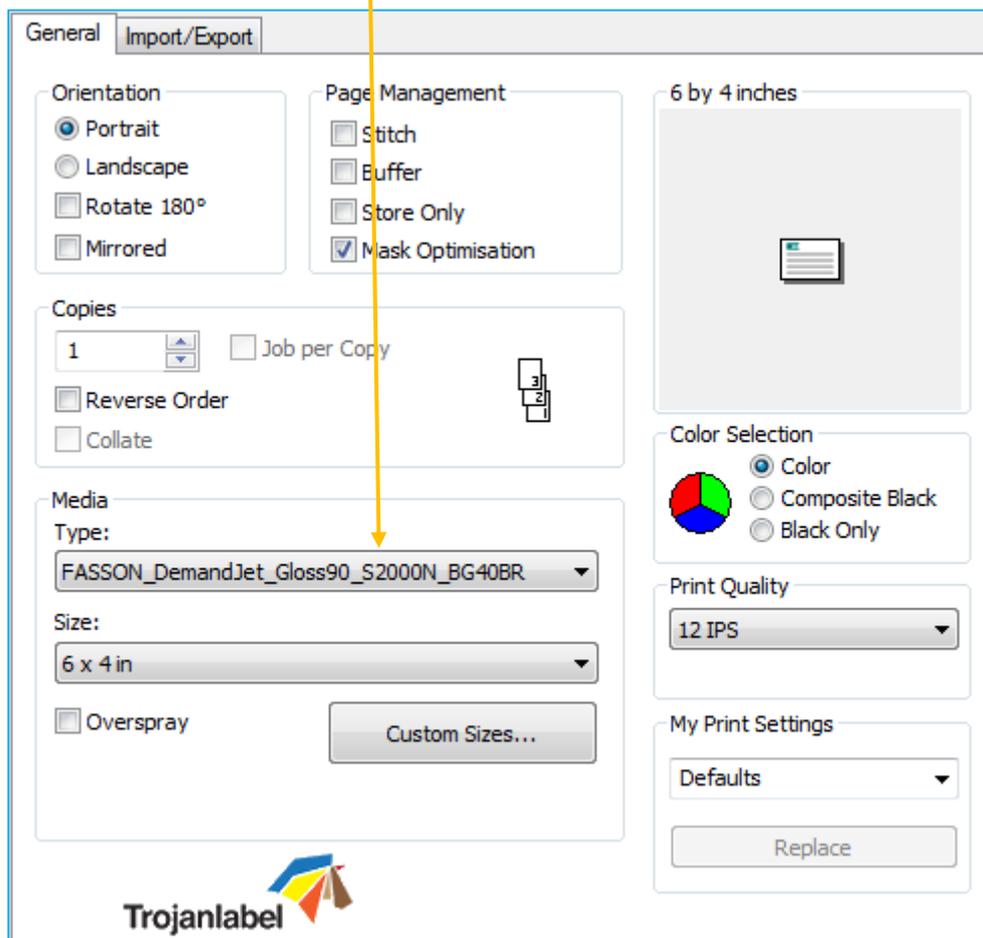


- **Media Name:**  
Save custom size into the profile list
- **Oversize:**  
Full bleed printing = oversizing the image by 1mm over the edges when printed.  
Aspect ratio is locked
- **Overspray:** Overspray printed image over the label size by 0.5mm. Does not preserve aspect ratio.
- ☂ **Color Selection:**
  - Color mode (uses CMYK ink to mix out colors on labels)
  - Composite Black (uses CMYK to mix out black color on labels)
  - Black Only (uses only black ink for printing black color on labels)
- ☂ **Print speed:**
  - 6 IPS (resolution 1600 x 1600 dpi)
  - 12 IPS (resolution 1600 x 800 dpi)
- ☂ **Page Management:**
  - **Stitching:** Stitching images together make one continuous image. This mode is for exceeding the maximum printable label length which is 762mm.  
**TIPS&TRICKS:** The maximum printable label length is 762mm. If 762mm label height is not enough, then **stitching** is the workaround option. In practice, create a multipage PDF where the long image is cut into pieces. This way if stitching option is on, the TrojanTwo press will stick all images from the multipage PDF together and print it out as one continuous image without gaps between pages.  
**NOTE:** The **PAUSE** function is not available in stitched mode because pause is only possible between two printed labels. Stitched images count as one label. The label counter also counts it as one label.
  - **Buffer:** Buffering the whole print job into the user PC's memory before sending it to the TrojanTwo press. This can be useful when the hardware of the user PC (where the driver is installed) is not powerful enough to generate the print stream in real time. Especially for large print jobs with variable data.

- **Store only:** Sending and storing the selected print job into the TrojanTwo job library without actually printing. The stored job can be printed out later from the Job Library menu at the TrojanTwo touch screen.
  - **Mask Optimisation:** Mask Optimization is a facility that switches between two different methods of image processing, affecting how an image is processed and printed. By default, Mask Optimization is selected to make sure that it optimizes the image processing for the majority of the printing applications used by the end users. However, for some users (particularly those using FlexMail), printing artefacts appear in the output. If this happens, the user should deselect 'Mask Optimisation' to correct this issue.
- **Integrating additional color profiles**
- Color profiling is done on demand by Trojanlabel
  - Color profile installer packages are available at official Trojanlabel distributors or from Trojanlabel extranet (login can be requested at [www.trojanlabel.com](http://www.trojanlabel.com) )
  - **Installing additional color profiles:**



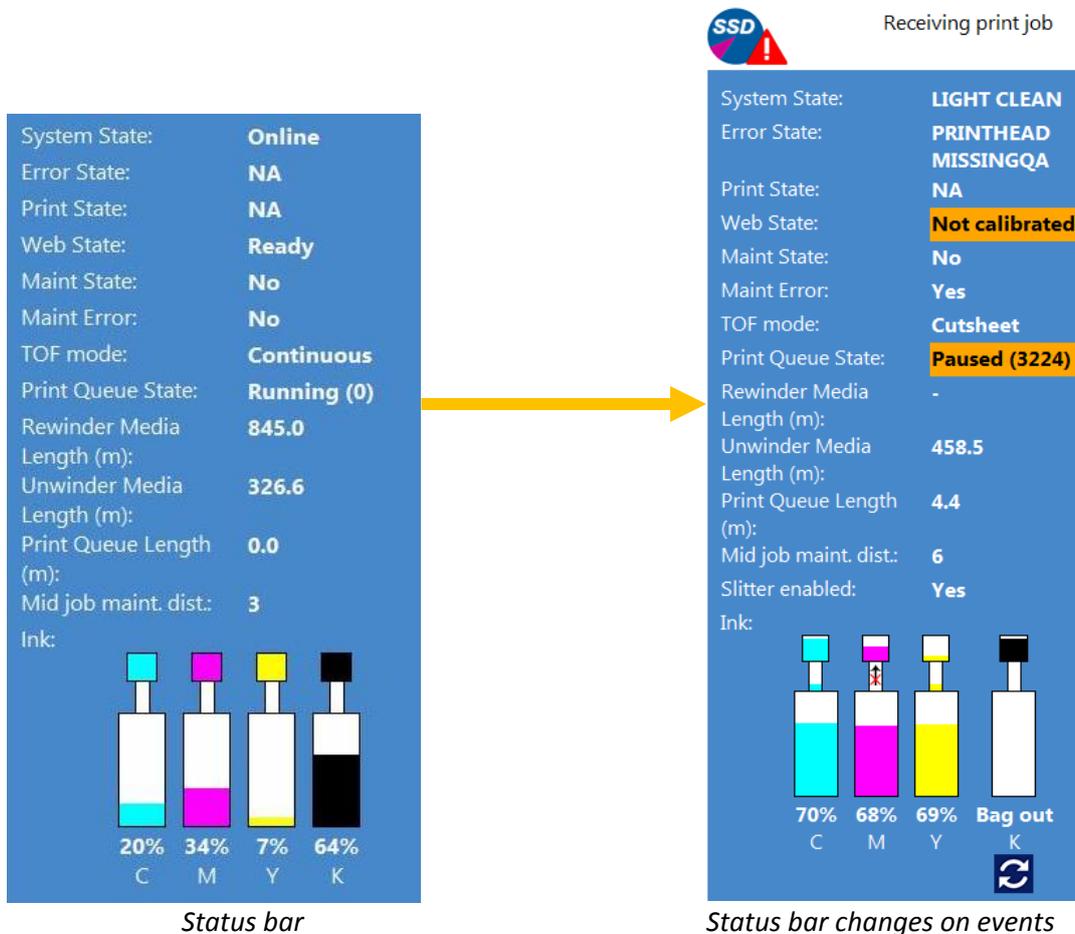
*Download and install executable package.*



*Installed color profiles are available in media type list after installation.*

## 13 Software features

### 13.1 Right status bar

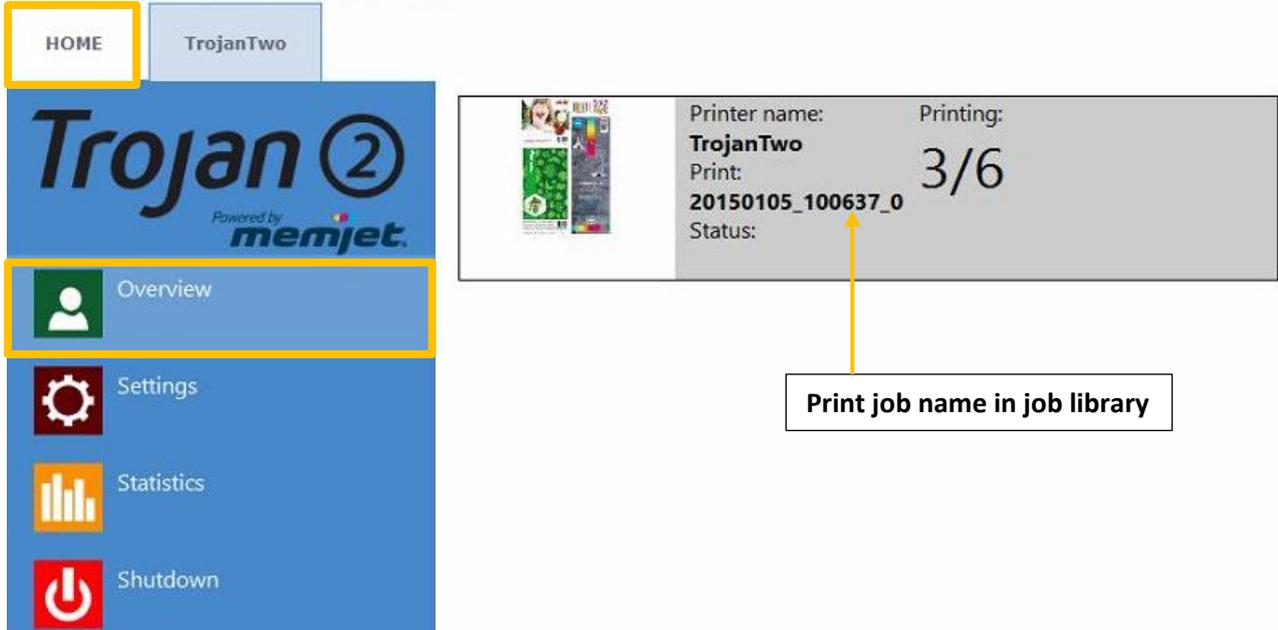


- **System State:**
  - Online** – ready for printing
  - Job Available** – print job is in the print queue
  - Paused** - print job is paused
  - Error** - shows error state and message
- **Error State:** shows if error state occurs
- **Print State:** shows if machine in printing
- **Web State: shows status of paper path**
  - Ready** – calibrated and ready for printing
  - Not Calibrated** – needs tension calibration
  - Calibrating** – when calibration is in process
  - Error (x)** – shows error code (see section 16. for error codes)
- **Maint state:** shows status of maintenance
- **Maint Error:** shows error status
- **TOF mode:** shows actual printing mode (See section 10. for available printing modes)

- **Print Queue State:** Running or Paused
- **Unwinder/Rewinder Media Length:** calculated from Unwinder/Rewinder spins. Useful for calculating how many labels can be printed before changing rolls if compared with print queue length.
- **Print Queue Length:** total length of print job(s) in the actual print queue in meters
- **Mid job maint. dist.:** after how many linear meters does the TrojanTwo perform a Mid-job maintenance. Value can be set at TrojanTwo -> Media Settings -> Advanced menu
- **Ink status:** shows ink levels in ink tanks and reservoir ink tanks, also shows process when ink is transferred from the ink tanks to the reservoir tanks

## 13.2 General settings (HOME menu)

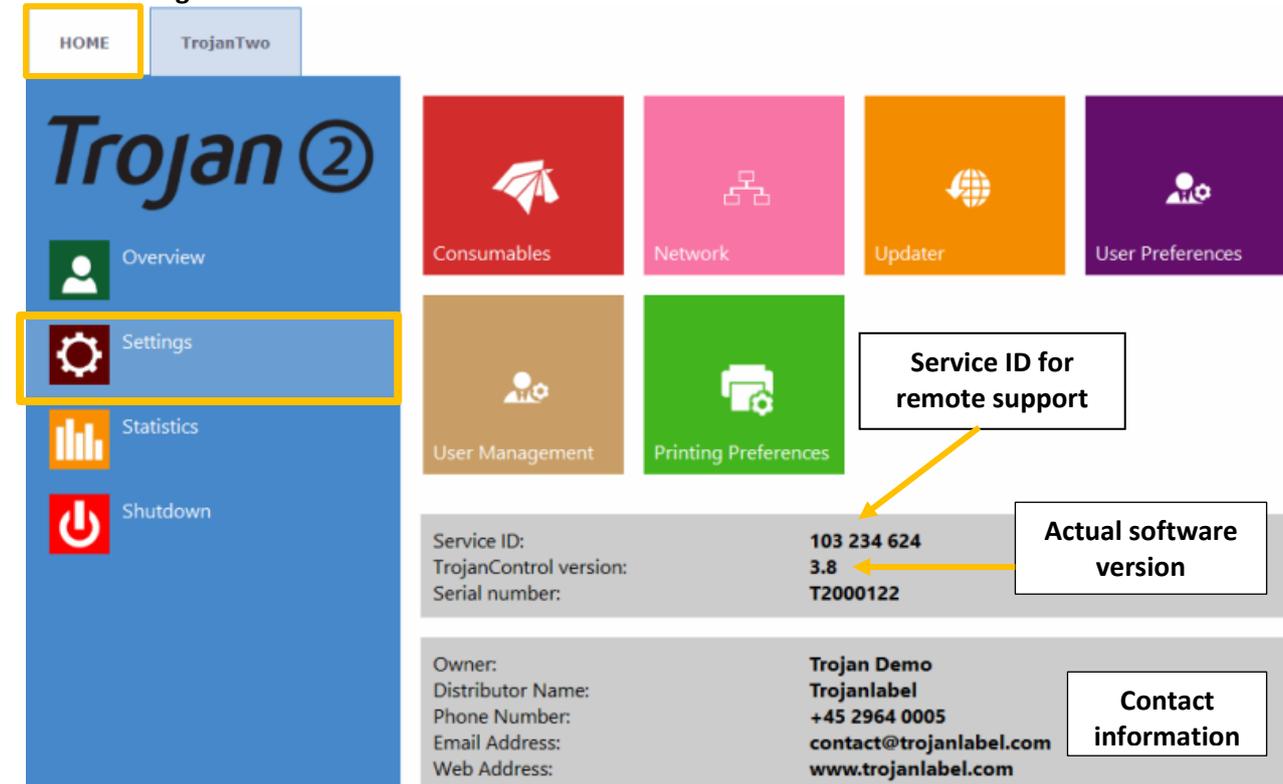
### 13.2.1 Overview



Overview menu when TrojanTwo press is printing

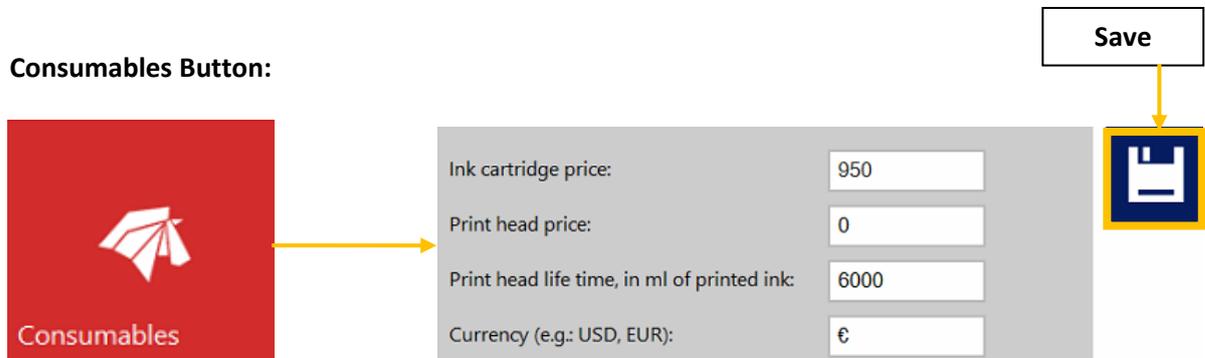
- Information from currently printed job, including:
  - Preview image of the label which is being printed at the moment
  - Label counter
  - Name of print job in job library

### 13.2.2 Settings



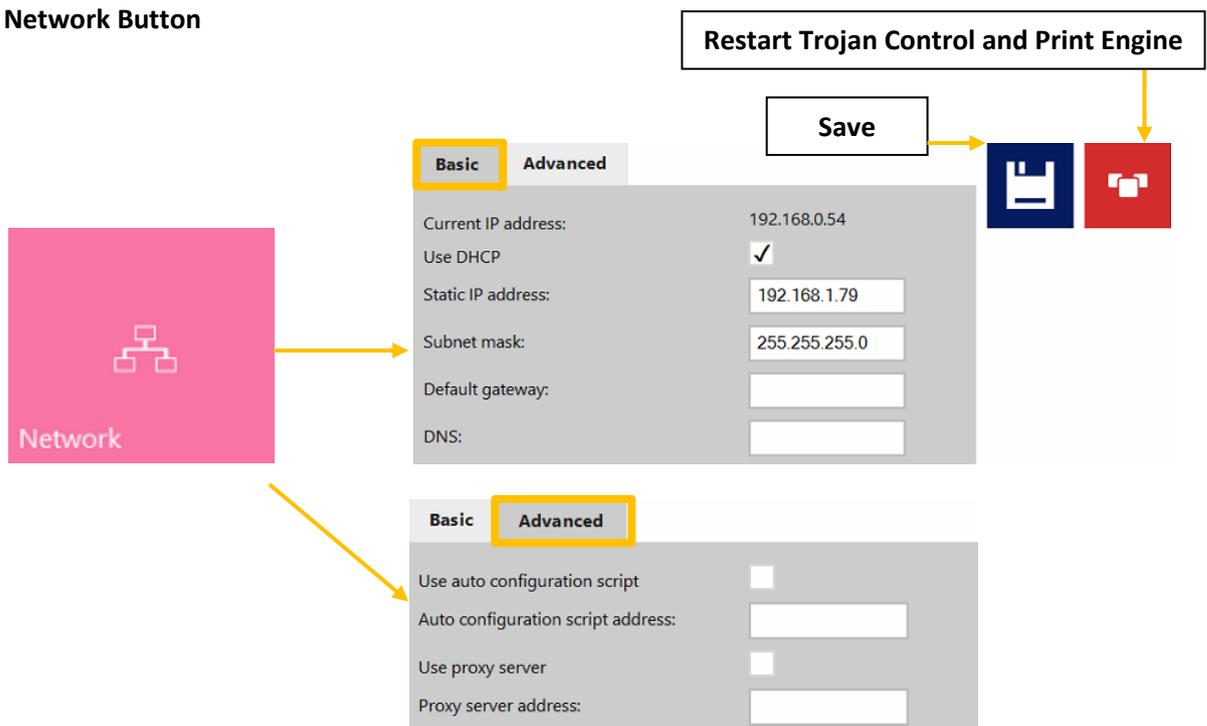
- Service ID is a unique ID for each TrojanTwo press. Based on the service ID, Trojanlabel support team can access to the Trojan Control via the internet from remote and provide support.
- Actual software version number of the Trojan Control interface (GUI).
- **Trojanlabel or the local Trojanlabel distributor fills out the owner and distributor contact information field at installation. This field is not editable for users.**

## ☛ Consumables Button:



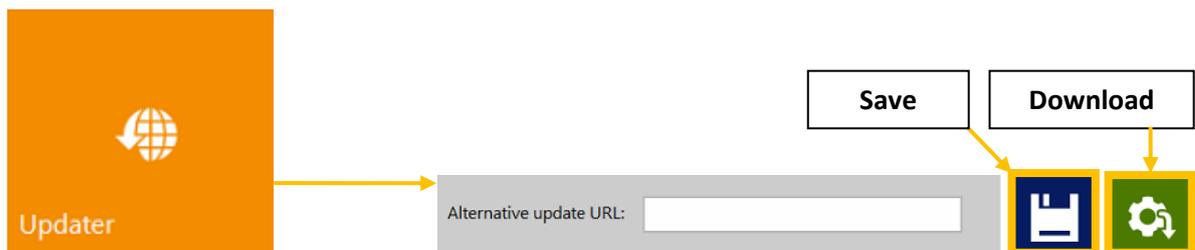
- **Ink cartridge price** is the base of ink cost/label calculation in statistics menu (see section 13.2.3). The actual price of a 2 Liters ink tank should be typed here.
- **Print head price** when filled up also included in cost/label calculation in statistics menu (see section 13.2.3).
- **Print head life time** is theoretical value which can be included in cost/label calculation as well. The value entered here represents the printed ink volume until a planned print head change. Example: planning to print 3000 ml ink with the currently installed printhead.
- Every time when change a setting use the **Save button** to save the changes.

## ☛ Network Button



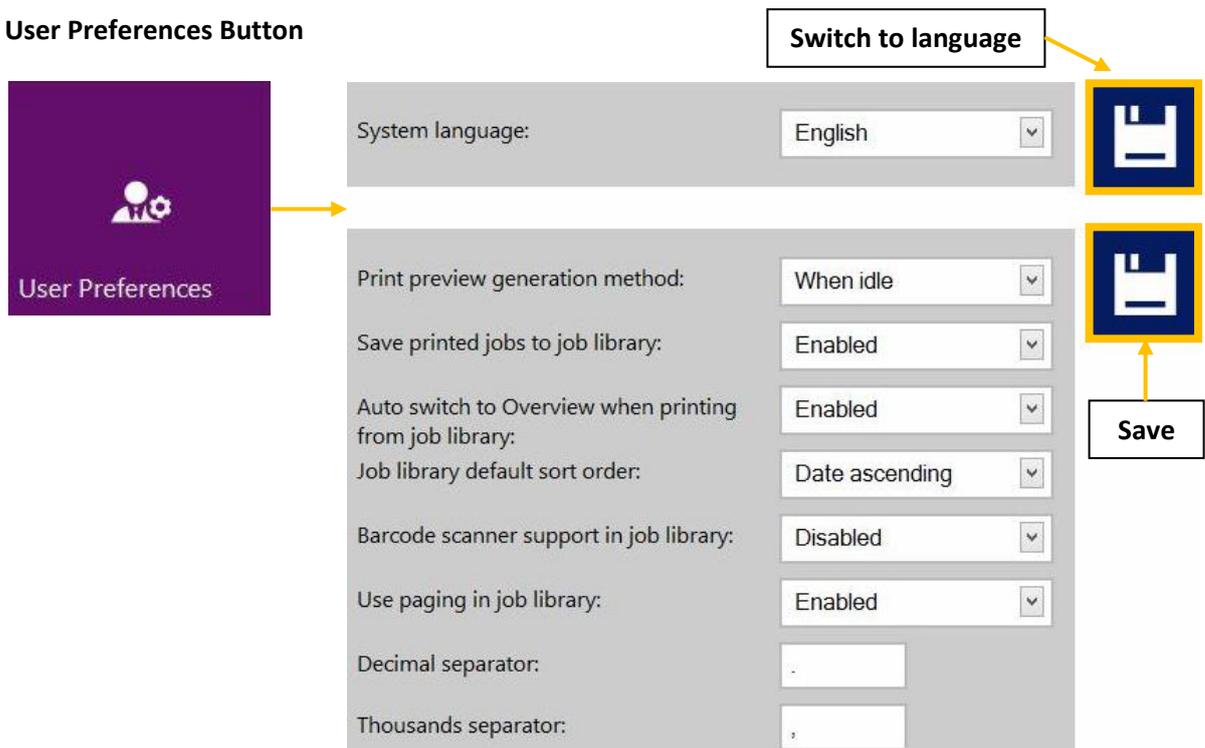
- Select **'Use DHCP'** checkbox to acquire IP address for the TrojanTwo press from the local network (as long as DHCP mode is selected TrojanTwo press ignores static IP settings).
- **Current IP address** field displays the current IP address of the TrojanTwo on the local network.
- Uncheck **'Use DHCP'** checkbox when local network policy recommends using static IP address.
- **'Restart Trojan Control and Print Engine'** button is for re-initializing all Trojan Control interface.  
**NOTE:** Use only if user interface becomes unresponsive to restart print engine and software.
- **Advanced tab:** enables usage of **Auto configuration scripts** or **Proxy Server** wherever the local network policy requires these for network/internet connection.
- Every time when change a setting use the **Save button** to save the changes.

## Updater Button



- By default for system updates the **'Alternative update URL'** field has to be empty (see section 7 for update process via auto updater or via Alternative update URL for offline updating).
- Press download button to download updates (each time when a new update is available a newsletter is released by Trojanlabel).
- Every time when change a setting use the **Save button** to save the changes.

## User Preferences Button



- **System language:** desired language from the list. Press Save button to switch into the selected language.
- **Print preview generation method:**
  - When idle (default):** creates one preview thumbnail image from the first image in the actual print job when print job arrives, then job is printed out. Previews for subsequent labels are created later in the background when system is in idle state.
  - Instantly:** creates preview images from all the images in the actual print job on when print job arrives, then sends job to print when finished with image creation.
  - Never:** no preview.

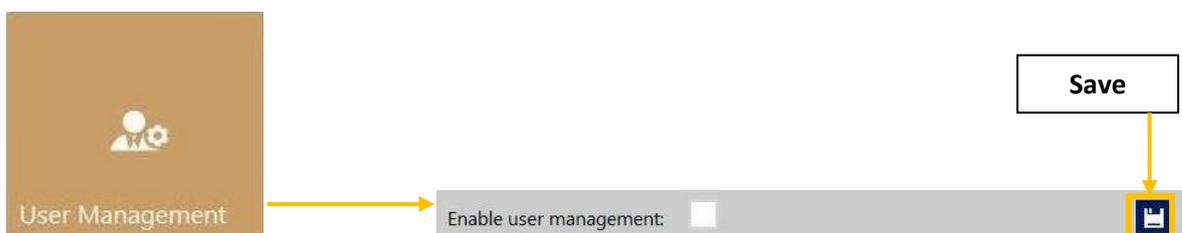
The preview is available in the **Job Library** (see section 13.3.3) or in real time in overview menu.

**WARNING: When preview generation is set to 'Instantly' it greatly increases the transfer time of large print jobs due to generating a preview image for every page in real time and can also cause Data Path Underrun error when large variable data jobs are sent.**
- **Save printed jobs to job library:**
  - Enabled:** The print job is stored and available for reprinting in the job library.
  - Disabled:** The printed jobs are not stored in the job library, however jobs that already been in the library will remain and be available for printing.
- **Auto switch to Overview when printing from job library:**
  - Enabled:** When printing from the job library the screen switches to overview mode.
  - Disabled:** When printing from the job library the screen remains in job library view.
- **Barcode scanner support in job library:** enabled/disabled.
 

When barcode scanner support is enabled, the search filter in Job Library menu (see section 13.3.3) will be active and only accepts input from a connected Barcode scanner (the virtual keyboard is disabled on screen) when searching for job names.

**NOTE:** Rename print jobs to match with barcode input to make this function work.
- **Use paging in job library:**
  - Enabled:** Enables paging with finger swipe and with scroll bar in Job Library.
  - Disabled:** Disables swiping and scroll bar in Job Library.
- **Decimal separator:** User can define separator for displaying decimals in the user interface.
- **Thousands separator:** User can define separator for displaying thousands in the user interface.

## User Management button



- By default user management is not enabled, every function of the TrojanTwo press is accessible without user authentication.
- Once User Management is enabled (press save button to enable) authentication is required for accessing specific functions in TrojanControl. A user with 'User Management' rights (like the built in 'admin' user) can create user accounts and can assign rights for each user to access certain functions in Trojan Control software.

Enable user management:

User name:

User password:

**HOME -> Settings**

- Ink Cartridge
- Network
- Updater
- User Preferences
- User Management

**Printer -> Handling**

- Release Printhead
- System Deprime
- Eject Maintenance Module
- Install Maintenance Module
- Wiper Inspection
- Set As Default

**Printer -> Media settings**

- Save as Template
- Set
- Delete Template

**Printer -> Diagnostics**

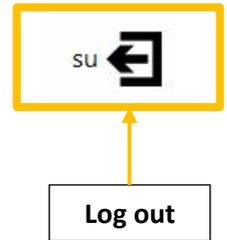
- Set Printer Name
- Print Test Page

**Printer -> Job library**

- Delete Job

**Printer -> Print queue**

- Pause/Resume Queue
- Change Standby Mode
- Enable/Disable Batch Mode
- Delete Job



Assign/change access rights to menus and functions



Add new user



Save new user settings / save changes in existing user account



Delete user from list

**NOTE:** Passwords can only contain numeric characters (only numbers). The default password for the **admin** user is **123**. It is advised to change the admin password during installation.

**WARNING:** Do not lock out yourself! At least one user must have 'User Management' right otherwise there is no way to add or change properties of other users. In case you end up locked out please contact Trojanlabel support who can restore the default user settings.

## ☛ Printing preferences button



Default print queue state:	Running	▼
Default batch mode:	Off	▼
Default batch mode timeout (seconds):	15	
Instant print (before job sending finished):	Disabled	▼
Instant printing buffer size (seconds):	60	
Edge regulation:	Enabled	▼
Web move speed (IPS):	6 IPS	▼
Web fast move speed (IPS):	18 IPS	▼
Pre job maintenance:	Enabled	▼
Mid job maintenance:	Enabled	▼
Post job maintenance:	Disabled	▼
Startup maintenance:	Disabled	▼
Shutdown maintenance:	Disabled	▼

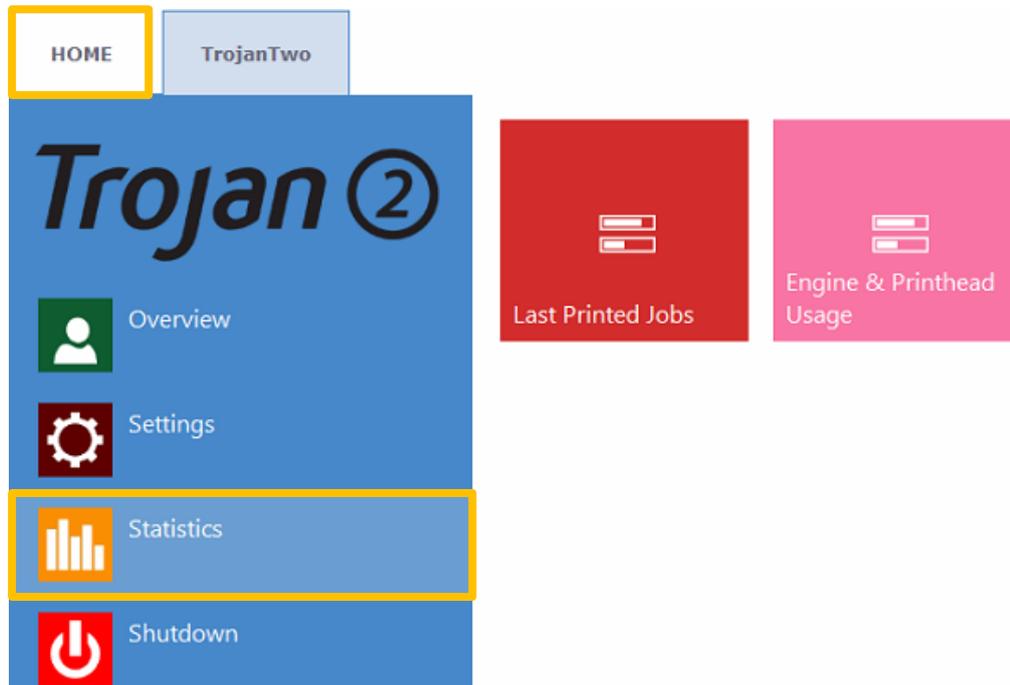
Save



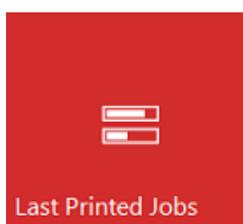
- Default print queue state:**  
**Running:** (Default) Print jobs are queued progressively as they sent and processed in FIFO (first in first out) system. The queue can be managed from Print queue menu (see section 13.3.5).  
**Paused:** Paused print job queuing.
- Default batch mode:**  
**NOTE:** **Batch mode** means that the TrojanTwo press is waiting for a certain period of time and batches the print jobs sent during the batch mode timeout. Batched print jobs are merged into 1 print job and printed out at once. Batched print jobs show up as 1 print job in statistics.  
**Off:** (default) Batch mode is switched off by default.  
**On:** Batch mode is on.
- Default batch mode timeout (seconds):**  
 If batch mode is on, the press is waiting for the print jobs to be sent until the timeout interval expires. All print jobs sent during this timeout period will be merged into 1 print job and printed out at once when timeout expires.
- Instant print (before job sending finished):** enabled/disabled.  
**NOTE:** This function **only works** when printing from the optional **Trojan Print Processor (TPP)** software and not from the regular TrojanTwo driver.  
**When disabled** the TrojanTwo press buffers the whole print job which is being sent to the press via the TrojanTwo driver before actually starting to print.  
**When enabled** the TrojanTwo press starts printing right after buffering X seconds of print stream (buffering time is set at next menu point).
- Instant printing buffer size (seconds):** timer set for the buffering when Instant print option is enabled.

- **Edge regulation:** enabled/disabled.  
When disabled, the label edge sensor is ignored.  
**NOTE:** Label edge sensor is for physical alignment of the label web. Moving the label edge sensor results in aligning the left edge of the label web physically throughout the paper path for perfect roll up on the rewinder (changes label roll left edge on core).
- **Web move speed (in IPS):** defines the movement speed when using the 'Forward/Backward Web' buttons in 'Handling menu' (see section 13.3.2). Speed can be 1,3,6,9 IPS.
- **Web fast movement speed (in IPS):** defines the movement speed when using the 'Fast forward/backward buttons' in 'Handling menu' (see section 13.3.2). Speed can be 9,12,15,18 IPS.
- **Pre job maintenance:** enabled/disabled.  
When disabled there is no print head maintenance prior print jobs.
- **Mid job maintenance:** enabled/disabled.  
When disabled there is no print head maintenance during print jobs.
- **Post job maintenance:** enabled/disabled.  
When disabled there is no print head maintenance after print jobs.
- **Startup maintenance:** enabled/disabled.  
When disabled there is no print head maintenance when the machine starts up.
- **Shutdown maintenance:** enabled/disabled.  
When disabled there is no print head maintenance when the machine is shutting down.

## 13.2.3 Statistics



### 🔑 Last Printed Jobs button:



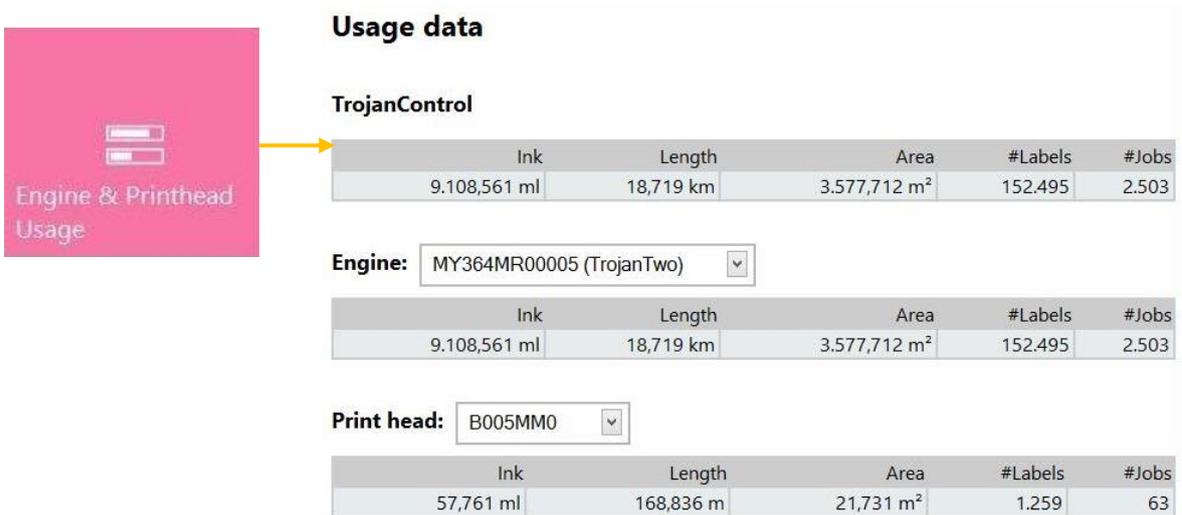
Job ID/Name	Pages	Mode	Printed Ink (nL)	Cost/label (ink) (€)	Cost/label (ink + PH) (€)	Cost/label (ink + PH + media) (€)
20150427_081659_10	10	Best(6IPS)	1 262 000	0.0480€*	0.0480€*	0.0739€*
20150425_121817_6	1	Normal(12IPS)	39 000	0.0148€	0.0148€	0.0248€
20150425_121806_5	1	Normal(12IPS)	21 000	0.0080€	0.0080€	0.0179€
SILOIL	1	Best(6IPS)	11 000	0.0042€	0.0042€	0.0103€
20150427_081927_16	1	Best(6IPS)	60 000	0.0228€	0.0228€	0.0526€
20150427_081833_14	1	Best(6IPS)	55 000	0.0209€	0.0209€	0.0398€
20150427_081817_13	1	Best(6IPS)	135 000	0.0513€	0.0513€	0.0741€
20150427_081759_12	1	Best(6IPS)	46 000	0.0175€	0.0175€	0.0255€
20150427_081735_11	1	Best(6IPS)	89 000	0.0338€	0.0338€	0.0581€
20150427_081659_10	1	Best(6IPS)	93 000	0.0353€	0.0353€	0.0613€

- Statistics list for the last 30 printed jobs (contains: number of pages, print speed, ink consumption, ink cost/label calculation, ink + print head cost/label, ink + media + print head cost/label calculation)
- **Cost/label (ink only) calculation** is the cost/1 label in the actual print job based on ink tank price given at HOME -> Settings -> Consumables menu.
- **Cost/label (ink + PH) calculation** is the cost/1 label in the actual print job based on ink tank price and print head price given at HOME -> Settings -> Consumables menu. Print head cost is added.
- **Cost/label (ink + PH + media) calculation** is the cost/1 label in the actual print job based on ink tank price and print head price given at HOME -> Settings -> Consumables menu and in addition media price given at TrojanTwo- > Media settings menu (See section 13.3.6, m<sup>2</sup> price for continuous material and label price for diecut or blackmarked material).

- **Job ID/Name** is the name of the actual print job in the job library (unique name can be specified instead of random numbers in job library, see section 13.3.3 for details).

**NOTE:** Prices marked by \* contain estimated cost of maintenances as well (pre-, mid-, post job maintenance). Prices without \* mark are pure printing cost of 1 label without maintenance cost added (see section 13.3.3 for printing samples without maintenance)

## 🔑 Engine & Printhead Usage button:



The screenshot shows a pink button labeled 'Engine & Printhead Usage'. An arrow points from the button to a section titled 'Usage data'. This section contains three data tables and two dropdown menus. The first table is for 'TrojanControl', the second for 'Engine' (MY364MR00005 (TrojanTwo)), and the third for 'Print head' (B005MM0). Each table has columns for Ink, Length, Area, #Labels, and #Jobs.

TrojanControl				
Ink	Length	Area	#Labels	#Jobs
9.108,561 ml	18,719 km	3.577,712 m <sup>2</sup>	152.495	2.503

Engine: MY364MR00005 (TrojanTwo) ▼

Ink	Length	Area	#Labels	#Jobs
9.108,561 ml	18,719 km	3.577,712 m <sup>2</sup>	152.495	2.503

Print head: B005MM0 ▼

Ink	Length	Area	#Labels	#Jobs
57,761 ml	168,836 m	21,731 m <sup>2</sup>	1.259	63

- **TrojanControl:** Total statistics for the TrojanTwo press for ink usage, printed length, printed area, number of labels and printed jobs.
- **Engine:** Total statistics and history for print engine(s). If there is a print engine replacement, all serial numbers will be registered and statistics for each print engine can be compared.
- **Print head:** Total statistics and history for all the printheads which have been connected to the TrojanTwo press. All connected printhead serial numbers will be registered and statistics for each printhead can be compared.

**NOTE:** A printhead must print at least 1 page to be able to register the usage statistics. A freshly installed printhead that has not printed any pages at the certain TrojanTwo press is displayed as an empty record.

**NOTE:** Printhead usage data is the total usage in the particular TrojanTwo press. Does not include usage history from usage data on other TrojanTwo presses if the particular printhead has been used on multiple TrojanTwo presses.

## 13.2.4 Shutdown



- Shuts down the TrojanTwo press completely.
  - NOTE:** When shutting down the unit it is advised to wait with turning the power switch off until the shutdown process is finished. There is a message on the display when the shutdown process is initiated to indicate that the shutdown process is still going on.
  - NOTE:** When shutdown process is finished (the screen turns blank) it is advised to turn the physical power switch off. The power switch is located at the back of the TrojanTwo press.

**CAUTION:**

**Always wait until shutdown process finishes before shutting down the power supply! Otherwise the Maintenance Module inside the machine might end up in the wrong position and cannot protect the printhead from dehydration. Dehydration of nozzles in the printhead may result in print quality defects. Shutdown process may take 1-2 minutes.**

## 13.2.5 Exporting statistics data to a CSV file

Statistics data from HOME -> Statistics menu can be exported and saved into a CSV file from a user PC which is connected to the same network as the TrojanTwo.

- Actual IP address of the TrojanTwo press can be set or acquired at HOME -> Settings -> Network menu (see section 13.2.2 for network settings)



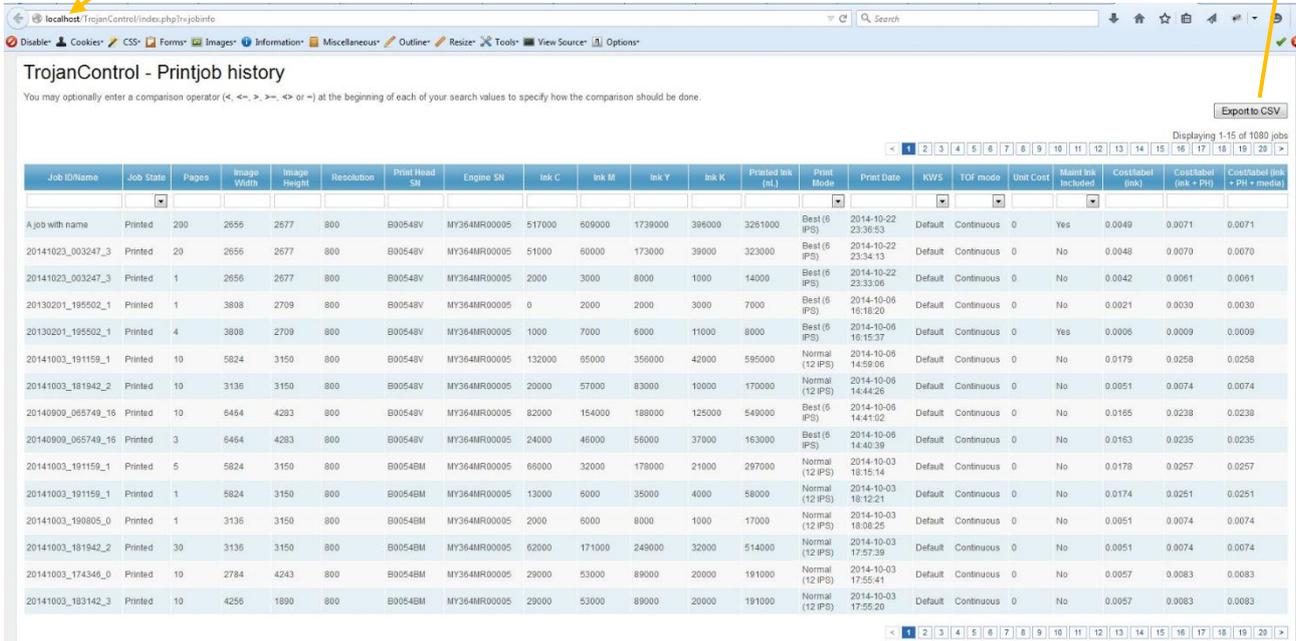
*Current IP address displayed at HOME\Settings\Network menu*

**NOTE:** IP address on screenshot above is an example only. Actual IP address is local network dependent and can always be checked at HOME -> Settings -> Network menu

- Type the actual IP address of the TrojanTwo press into a browser at a user PC:

Type actual IP address here

Export to CSV



TrojanControl - Printjob history

You may optionally enter a comparison operator (<, <=, >, >=, <> or =) at the beginning of each of your search values to specify how the comparison should be done.

Job ID/Name	Job State	Pages	Image Width	Image Height	Resolution	Print Head SN	Engine SN	Ink C	Ink M	Ink Y	Ink K	Printed ink (tL)	Print Mode	Print Date	KWS	TOF mode	Unit Cost	Maind ink included	Costlabel (ink)	Costlabel (ink + Pti)	Costlabel (ink + Pti + media)
A job with name	Printed	200	2656	2677	800	B00548V	MY364MR00005	517000	609000	1739000	396000	3261000	Best (6 IPS)	2014-10-22 23:36:53	Default	Continuous	0	Yes	0.0049	0.0071	0.0071
20141023_003247_3	Printed	20	2656	2677	800	B00548V	MY364MR00005	51000	60000	173000	39000	323000	Best (6 IPS)	2014-10-22 23:34:13	Default	Continuous	0	No	0.0048	0.0070	0.0070
20141023_003247_3	Printed	1	2656	2677	800	B00548V	MY364MR00005	2000	3000	8000	1000	14000	Best (6 IPS)	2014-10-22 23:33:06	Default	Continuous	0	No	0.0042	0.0061	0.0061
20130201_195502_1	Printed	1	3808	2709	800	B00548V	MY364MR00005	0	2000	2000	3000	7000	Best (6 IPS)	2014-10-06 16:18:20	Default	Continuous	0	No	0.0021	0.0030	0.0030
20130201_195502_1	Printed	4	3808	2709	800	B00548V	MY364MR00005	1000	7000	6000	11000	8000	Best (6 IPS)	2014-10-06 16:15:37	Default	Continuous	0	Yes	0.0006	0.0009	0.0009
20141003_191159_1	Printed	10	5824	3150	800	B00548V	MY364MR00005	132000	65000	356000	42000	595000	Normal (12 IPS)	2014-10-06 14:59:06	Default	Continuous	0	No	0.0179	0.0258	0.0258
20141003_181942_2	Printed	10	3136	3150	800	B00548V	MY364MR00005	20000	57000	83000	10000	170000	Normal (12 IPS)	2014-10-06 14:44:26	Default	Continuous	0	No	0.0051	0.0074	0.0074
20140909_065749_16	Printed	10	6464	4283	800	B00548V	MY364MR00005	82000	154000	188000	125000	549000	Best (6 IPS)	2014-10-06 14:41:02	Default	Continuous	0	No	0.0165	0.0238	0.0238
20140909_065749_16	Printed	3	6464	4283	800	B00548V	MY364MR00005	24000	46000	56000	37000	163000	Best (6 IPS)	2014-10-06 14:40:39	Default	Continuous	0	No	0.0163	0.0235	0.0235
20141003_191159_1	Printed	5	5824	3150	800	B00548M	MY364MR00005	66000	32000	178000	21000	297000	Normal (12 IPS)	2014-10-03 18:15:14	Default	Continuous	0	No	0.0178	0.0257	0.0257
20141003_191159_1	Printed	1	5824	3150	800	B00548M	MY364MR00005	13000	6000	35000	4000	58000	Normal (12 IPS)	2014-10-03 18:12:21	Default	Continuous	0	No	0.0174	0.0251	0.0251
20141003_190805_0	Printed	1	3136	3150	800	B00548M	MY364MR00005	2000	6000	8000	1000	17000	Normal (12 IPS)	2014-10-03 18:08:25	Default	Continuous	0	No	0.0051	0.0074	0.0074
20141003_181942_2	Printed	30	3136	3150	800	B00548M	MY364MR00005	62000	171000	249000	32000	514000	Normal (12 IPS)	2014-10-03 17:57:39	Default	Continuous	0	No	0.0051	0.0074	0.0074
20141003_174346_0	Printed	10	2784	4243	800	B00548M	MY364MR00005	29000	53000	89000	20000	191000	Normal (12 IPS)	2014-10-03 17:55:41	Default	Continuous	0	No	0.0057	0.0083	0.0083
20141003_183142_3	Printed	10	4256	1890	800	B00548M	MY364MR00005	29000	53000	89000	20000	191000	Normal (12 IPS)	2014-10-03 17:55:20	Default	Continuous	0	No	0.0057	0.0083	0.0083

Exporting statistics page

- Press 'Export to CSV' button on page to save the statistics into a CSV file.

## TrojanControl - Printjob history

You may optionally enter a comparison operator (<, <=, >, >=, <> or =) at the beginning of each of your search values to specify how the comparison should be done.

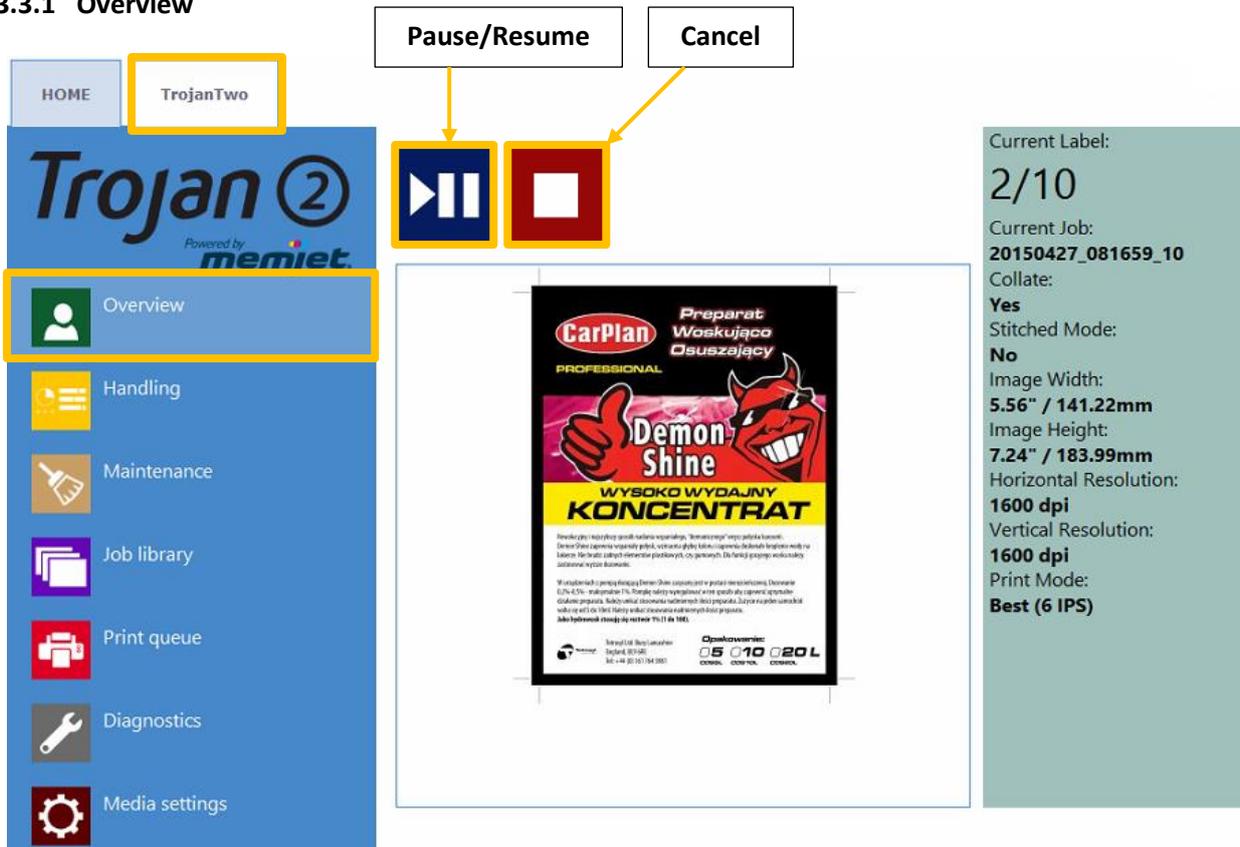
Job ID/Name	Job State	Pages	Image Width	Image Height	Resolution	Print Head SN	Engine SN	Ink C	Ink M	Ink Y	Ink K
A job with name	Printed	200	2656	2677	800	B00548V	MY364MR00005	517000	609000	1739000	396000
20141023_003247_3	Printed	20	2656	2677	800	B00548V	MY364MR00005	51000	60000	173000	39000
20141023_003247_3	Printed	1	2656	2677	800	B00548V	MY364MR00005	2000	3000	8000	1000
20130201_195502_1	Printed	1	3808	2709	800	B00548V	MY364MR00005	0	2000	2000	3000
20130201_195502_1	Printed	4	3808	2709	800	B00548V	MY364MR00005	1000	7000	6000	11000

Closer view

**NOTE:** Ink consumption is more detailed in this view and displayed for each used base color (CMYK) and in total as well.

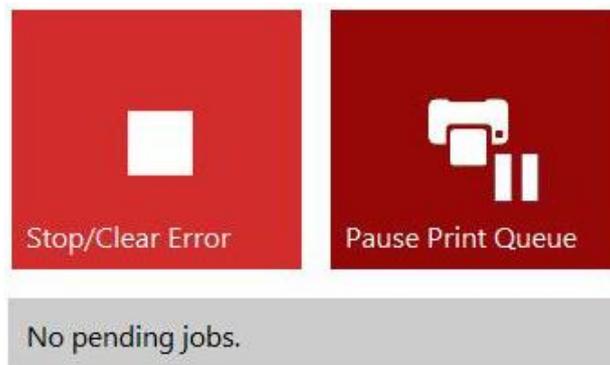
## 13.3 TrojanTwo handling (TrojanTwo tab)

### 13.3.1 Overview



Overview menu when TrojanTwo is printing.

- Information from currently printed job, including:
  - Preview image of the label which is being printed at the moment
  - Label counter
  - Name of print job in job library
- Shows Print Queue state and Stop/Clear Error button when machine is in idle mode.



Overview menu when TrojanTwo is in idle state (not printing).

## 13.3.2 Handling



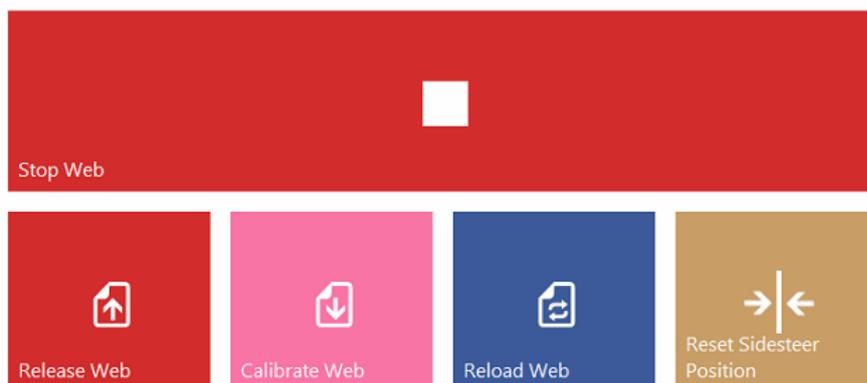
### 🚩 Backward/Forward Web button

Moving label web backward/forward (movement speed is defined in HOME -> Settings -> Printing Preferences menu).

### 🚩 Fast Backward/Forward Web button

Moving label web fast backward/forward (movement speed is defined in HOME -> Settings -> User Preferences menu).

**NOTE:** When either of the web moving buttons used in the top row the screen switches to Stop Web button instead of forward/backward buttons until web movement is stopped.



*Stop Web button when label web is moving backward/forward*

🚩 **Release Web button**

Releases tension on dancer arms so there is no tension generated by the web path system. Web clamps on Unwinder and Rewinder side stay closed.

🚩 **Calibrate Web button**

Calibrates proper dancer arm tension for the label web.

**NOTE:** Printing only starts when web status is Ready (calibrated) in right status bar (Section 13.1)

🚩 **Reload Web button**

Releases dancer arms, web brakes and NIP roller so label web can be moved freely through the paper path. Pressing Reload web button is necessary when changing rolls or splicing two rolls together.

🚩 **Reset Sidesteer Position button**

Resets the unwinder core to the default horizontal position. This function is needed when a new label roll is loaded to the unwinder core to align label edge and label edge sensor to the print head's left edge. (See section 4.4 for adjusting label roll on unwinder core)

**NOTE:** This function is only active when the web state is 'Not Calibrated', otherwise the button is grey and cannot be pressed.

🚩 **Move to Printhead button**

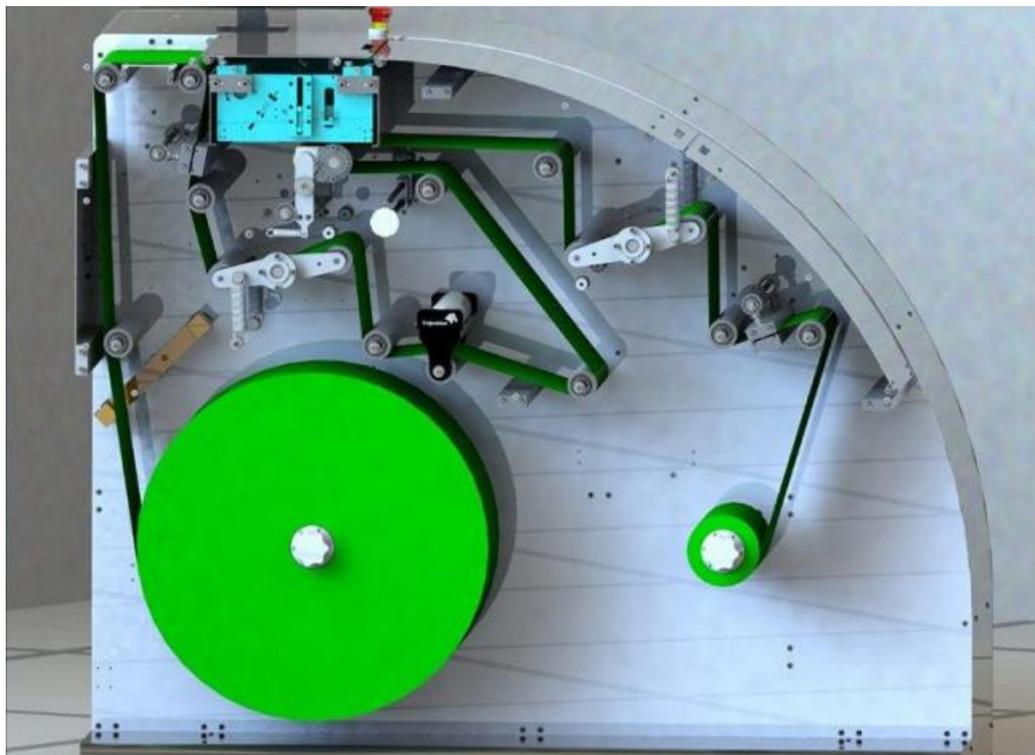
Label web moves forward by 204cm (2040mm) from splicing station to printhead. The point is to move the splice (where two label rolls are spliced together at splicing station) to the printing position with a single button press.

🚩 **Move to Rewinder button**

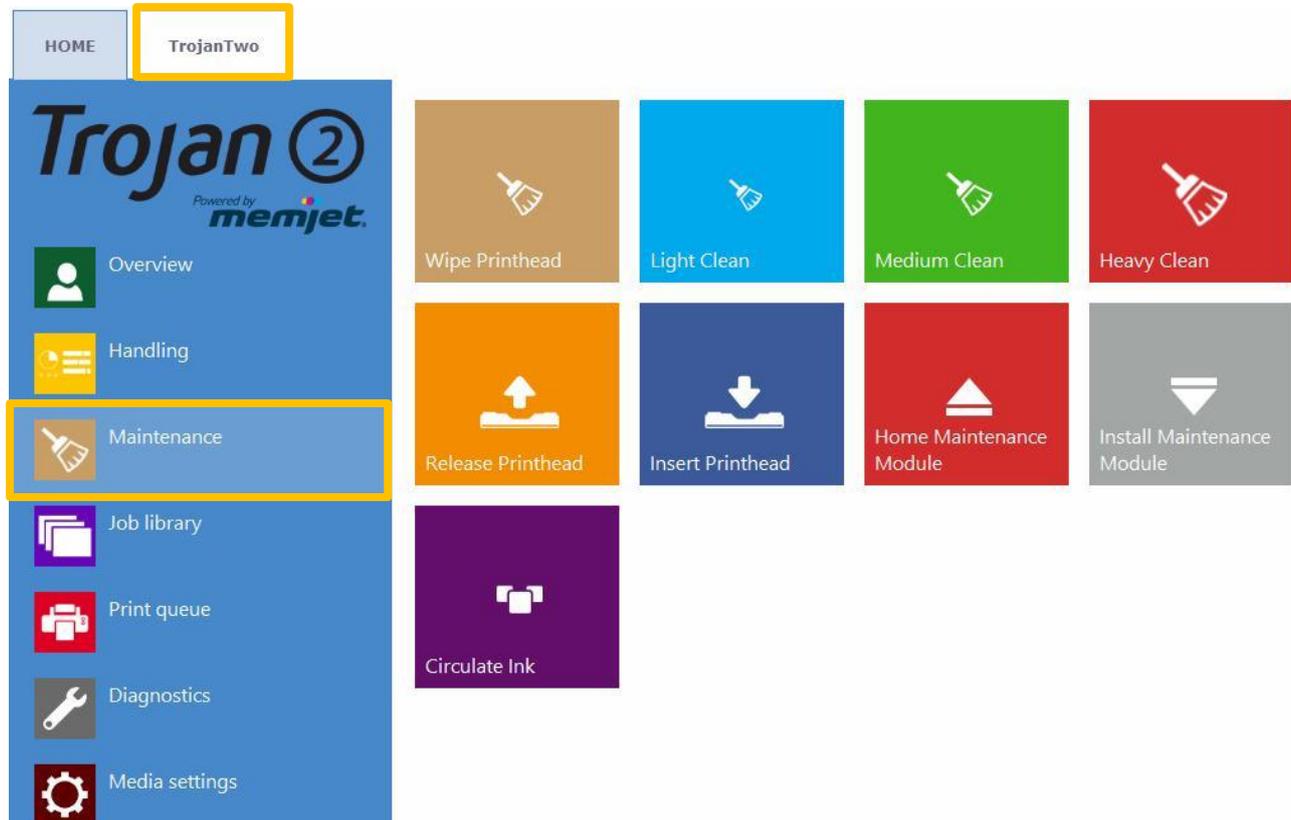
Label web moves forward by 390cm (3900mm) from splicing station to the rewinder. The point is to move the splice (where two label rolls are spliced together at splicing station) to the rewinder with a single button press.

🚩 **Show Media Path button**

Pressing this button displays the drawing of how to thread the label material through the paper path of the machine. Helping operators to properly load the label material.



## 13.3.3 Maintenance



### **Wipe Printhead button**

The maintenance module performs printhead wiping 3 times to clean the surface of the printhead.

### **Light Clean button**

Additional maintenance routine for fixing fine streaks and for cleaning printhead surface. Takes about a minute. Can be run multiple times. Advised to use when automatic maintenance routines and ink circulations are not enough.

### **Medium Clean button**

Additional maintenance routine for fixing streaks, spitting ink through the nozzles and for cleaning printhead surface. Takes about 2-3 minutes. Heavier form of Light Clean. Advised to use when automatic maintenance routines, ink circulations and Light Cleanings are not enough to recover print quality. Usually when medium clean is needed, it is the sign of the particular printhead is getting aged and near towards the end of life.

### **Heavy Clean button**

Additional maintenance routine for fixing serious streaks and nozzle dehydration. Heavy cleaning takes about 5 minutes. Only advised to use when Medium clean does not prove to be enough to recover print quality. Heavy cleaning creates significant amount of waste ink. Usually when heavy cleaning is needed, it is the sign of installed printhead has reached end of life or printhead nozzles are heavily dehydrated.

### **Release Printhead button**

Opens up the printhead latch to be able to install/replace the printhead physically.

☛ **Insert Printhead button**

Primes up the newly inserted printhead with ink.

**NOTE:** Priming up the printhead with ink may take several minutes.

**NOTE:** During first time installation, when the reservoir tanks are not filled with ink, the printhead priming does not begin until reservoir tanks get full. Pressing the Insert Printhead button might be required 2 times to prime up the printhead with ink in this case.

☛ **Home Maintenance Module button**

Moving maintenance module into home position. Maintenance module is sliding out from below the printhead. When maintenance module is in home position it can be inspected and wiper roller, cap module can be replaced.

☛ **Install Maintenance Module button**

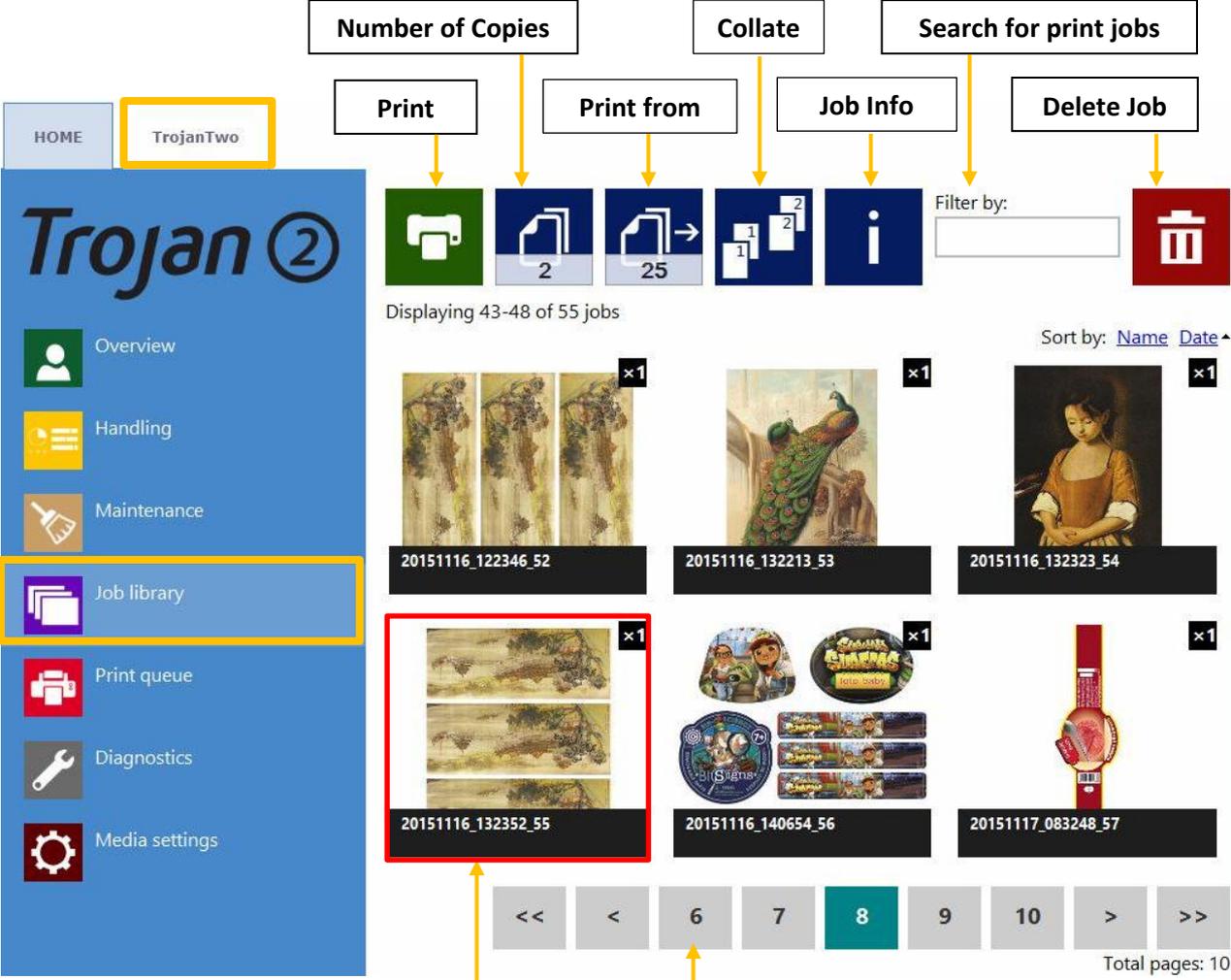
Moving maintenance module back to installed position (under the printhead).

☛ **Circulate Ink button**

Circulates ink in the system to purge air bubbles. This function does not create waste ink and can be run as many times as needed. One ink circulation cycle takes a few seconds only.

**NOTE:** Ink circulation is a very useful function and can help to get rid of fine streaks generated by air bubbles which might be blocking some printhead nozzles. It takes less time than Light Cleaning.

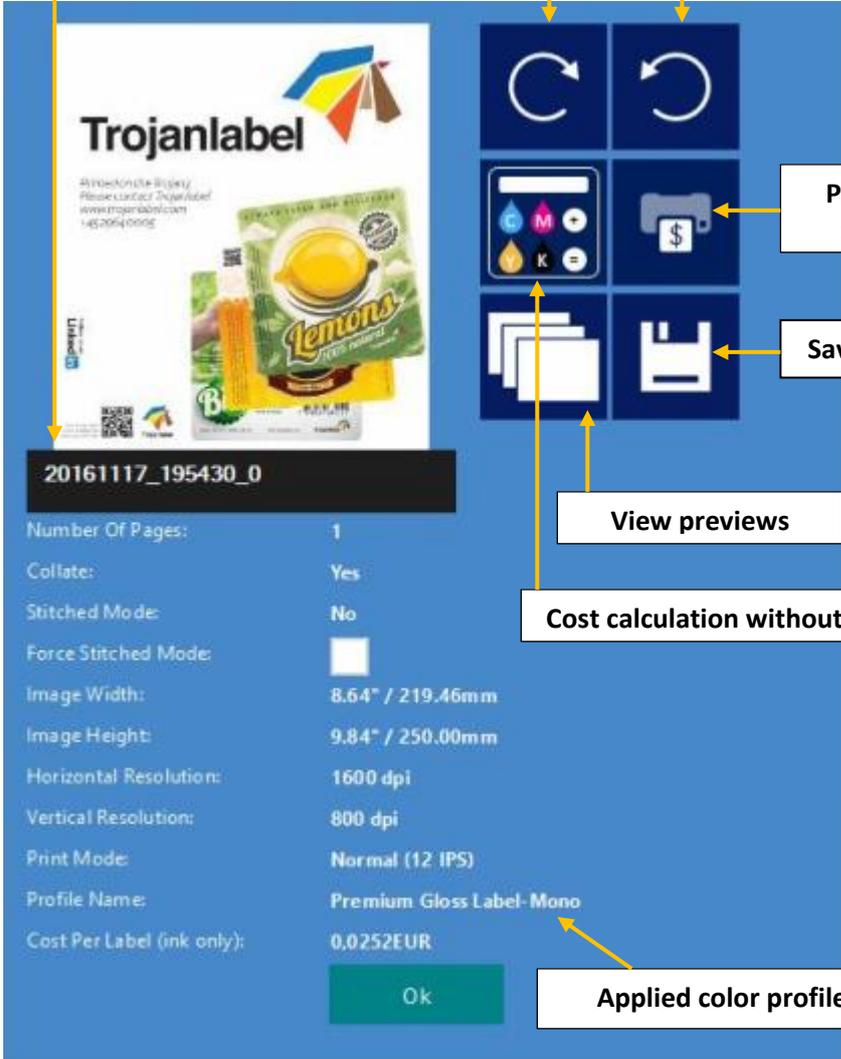
## 13.3.4 Job Library



The screenshot shows the Trojan Two Job Library interface. The sidebar on the left includes options: HOME, TrojanTwo, Overview, Handling, Maintenance, Job library (highlighted), Print queue, Diagnostics, and Media settings. The main area displays a grid of print jobs with annotations: 'Number of Copies' points to the '2' and '25' icons; 'Collate' points to the '1 2' icon; 'Search for print jobs' points to the 'Filter by:' input field; 'Print' points to the printer icon; 'Print from' points to the '2' and '25' icons; 'Job Info' points to the 'i' icon; 'Delete Job' points to the trash icon. Below the grid, a pagination bar shows page numbers 6, 7, 8 (selected), 9, 10, with arrows for navigation. Annotations 'Stored Print Job' and 'Paging' point to the first job and the pagination bar respectively. The text 'Displaying 43-48 of 55 jobs' and 'Sort by: Name Date' are also visible.

- **Stores 30 printed jobs with random job name by default (print streams uploaded from driver).**
- **Print jobs can be renamed:** Renamed print jobs are stored beyond the default 30 with random name. Only the drive space is the limit for storing jobs. Renaming can be done at information window. See picture below.
- **Remembers last visited page and job when** returning to the Job Library menu.
- **Stored labels:**
  - Print, change number of copies, print from a certain page number
  - Information about each print job (size, number of labels, speed, cost per label, applied color profile etc.)
  - Preview of print job
  - View images in a print job
  - Delete print job(s)
- **Can swipe on touchscreen or use the scroll bar for paging** when paging is enabled at HOME -> Settings -> User Preferences menu (See section 13.2.2)

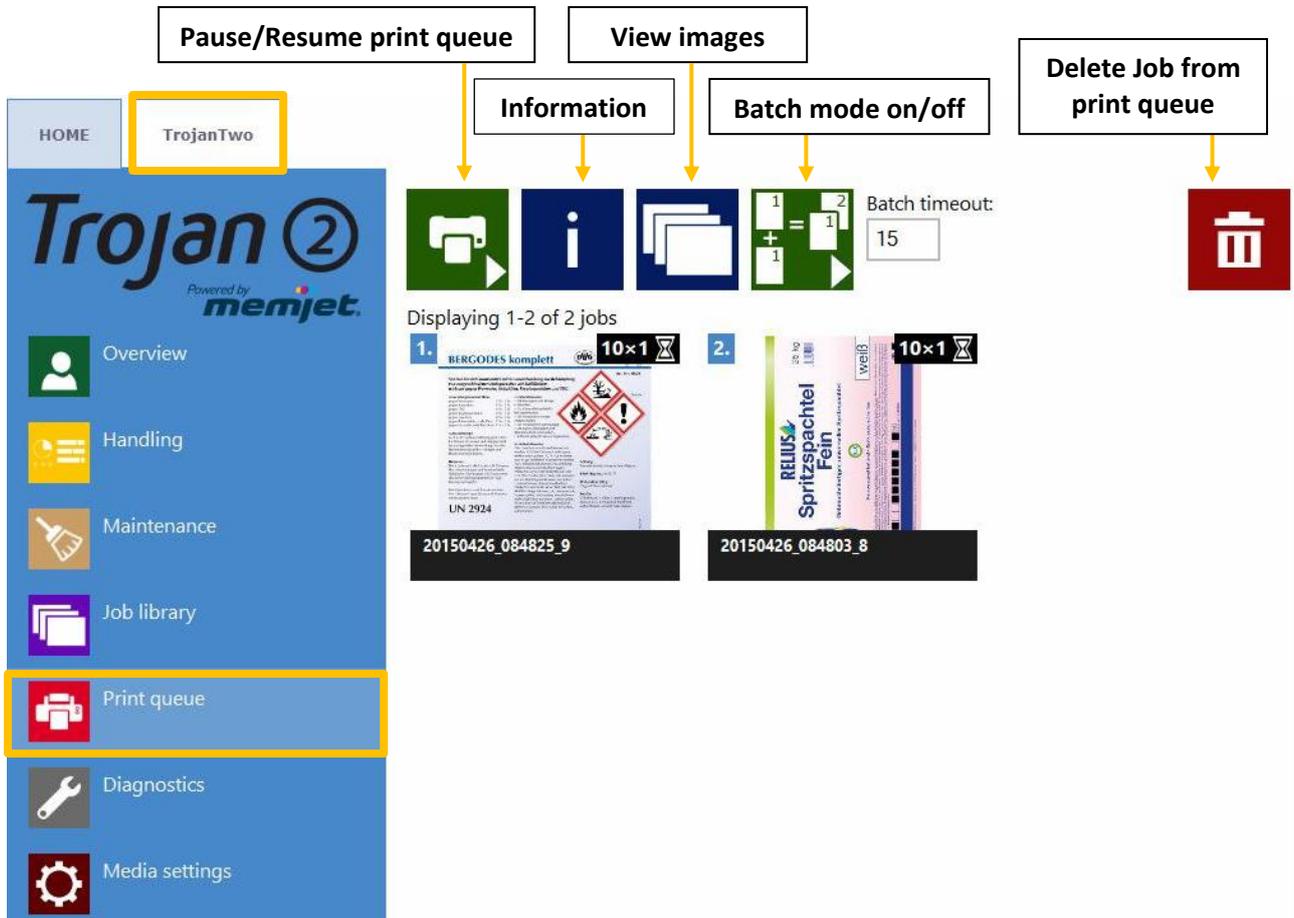
🔗 **Information button:**



The screenshot shows the Trojanlabel print driver interface. At the top, three buttons are highlighted: 'Rename print job', 'Rotate preview clockwise', and 'Rotate preview counter-clockwise'. The main interface features a preview of a 'Lemons' label, a job ID '20161117\_195430\_0', and a list of settings including 'Number Of Pages: 1', 'Collate: Yes', 'Stitched Mode: No', 'Image Width: 8.64" / 219.46mm', 'Image Height: 9.84" / 250.00mm', 'Horizontal Resolution: 1600 dpi', 'Vertical Resolution: 800 dpi', 'Print Mode: Normal (12 IPS)', 'Profile Name: Premium Gloss Label-Mono', and 'Cost Per Label (ink only): 0,0252EUR'. A green 'Ok' button is at the bottom. On the right, a control panel contains buttons for 'Print one copy for cost calculation', 'Save changes', 'View previews', and 'Cost calculation without printing'. A callout 'Applied color profile in the driver' points to the 'Profile Name' setting.

- 🔗 **Print one copy for cost calculation button:** Prints only one copy without pre or post job maintenance. Focus is on cost/label calculation not on quality. Pure ink cost of 1 label.
- 🔗 **Cost calculation without printing button:** when pressed the system is capable to calculate the ink consumption for the certain print job without actually printing the label.
- 🔗 **Applied color profile:** the color profile applied in the driver when the job was sent (see section 12.2 for selecting color profiles).
- 🔗 **Collate button:** Describes the order how the different pages will be printed out within one print job when printing a multipage file.
  1. Copies of a page are printed one after the other within a print job
  2. Copies of pages are printed in sequential order within a print job
- 🔗 **Print From button:** makes sense when job contains different pages (variable data, different images etc.) and user wants to print out the stored job from a certain page number.
- 🔗 **Force Stitch Mode checkbox:** Normally Stitch mode can be enabled from the TrojanTwo driver, however enabling the stitch mode checkbox will create a stitch mode job from the actual job when printed (see more from stitch mode at section 12.2). This function is useful when the job was sent from the RIP software where stitch mode is not available.

## 13.3.5 Print Queue

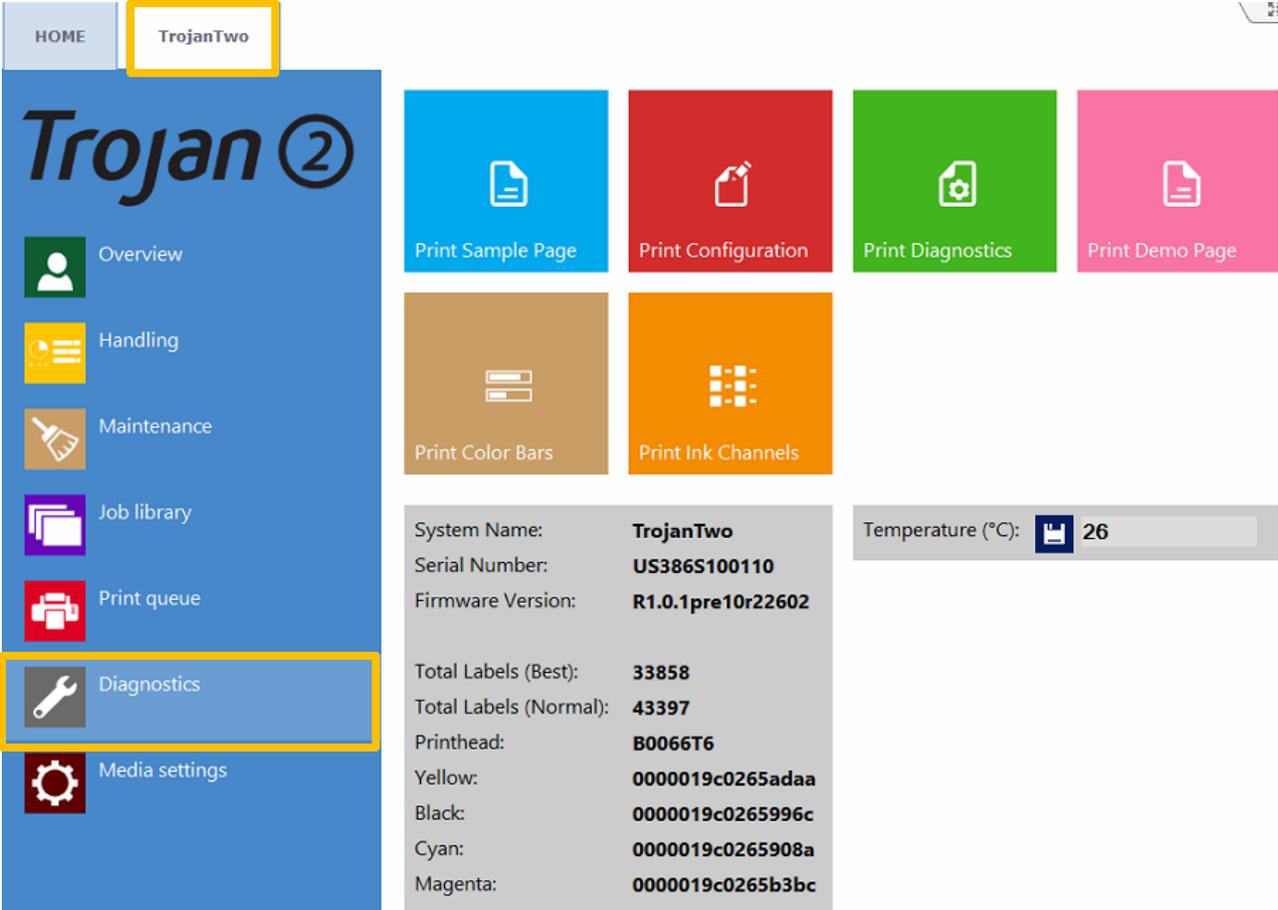


- Print jobs are queued progressively as they sent and processed in FIFO (first in first out) system. The queue can be managed from Print queue menu.
- The print queue is stored even if the TrojanTwo is restarted.

**NOTE:** The currently printed job in the queue cannot be deleted.

- ☛ **Pause/Resume Print Queue button:** While print queue is paused the jobs are pending in the queue and printing only starts when the queue is resumed.
- ☛ **Information button:** Same as in job library (see section 13.3.4).
- ☛ **Batch Mode on/off:** Batch mode means that all jobs sent within a defined timeout period will be merged into 1 job and will be printed out at once when the timeout expires. The timeout counter begins when batch mode is switched on.
- ☛ **Bath mode timeout:** Period of time while jobs are merged together when batch mode is on.

## 13.3.6 Diagnostics



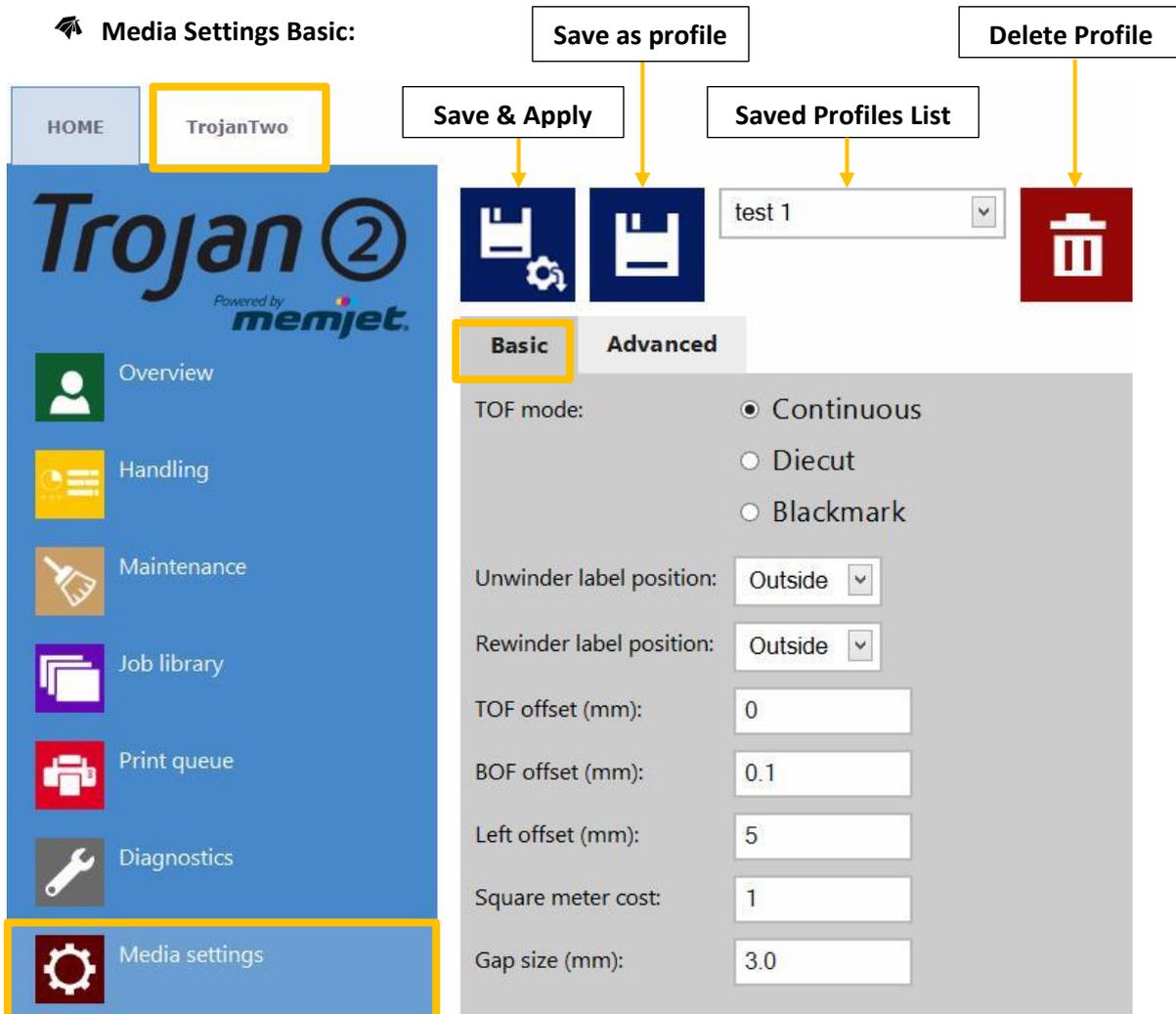
The screenshot shows the TrojanTwo web interface. The 'TrojanTwo' tab is selected in the top navigation bar. The left sidebar contains a menu with the following items: Overview, Handling, Maintenance, Job library, Print queue, Diagnostics (highlighted with a yellow box), and Media settings. The main content area displays several print options: Print Sample Page, Print Configuration, Print Diagnostics, Print Demo Page, Print Color Bars, and Print Ink Channels. Below these options is a system information panel with the following details:

System Name:	<b>TrojanTwo</b>	Temperature (°C):	<b>26</b>
Serial Number:	<b>US386S100110</b>		
Firmware Version:	<b>R1.0.1pre10r22602</b>		
Total Labels (Best):	<b>33858</b>		
Total Labels (Normal):	<b>43397</b>		
Printhead:	<b>B0066T6</b>		
Yellow:	<b>0000019c0265adaa</b>		
Black:	<b>0000019c0265996c</b>		
Cyan:	<b>0000019c0265908a</b>		
Magenta:	<b>0000019c0265b3bc</b>		

- Information about software, serial numbers, total label counter.
- 🔧 **Temperature:** Adjusting ink temperature to room temperature for the best print quality. The average temperature of the room where the TrojanTwo is set up displayed in temperature field based on the feedback of the built in temperature sensor. Heating up the ink right before printing will be adjusted to environmental temperature. This field is filled up automatically based on the temperature sensor but can be overwritten by the user.
  - NOTE:** User defined temperature value remains active until next reboot only.
- 🔧 **Sample page:** Sample page with current NVM and variable settings (A4 size).
- 🔧 **Configuration page:** Containing current configuration settings (A4 size).
- 🔧 **Diagnostics page:** Containing system information (A4 size).
- 🔧 **Demo page:** Demo image (A4 size).
- 🔧 **Color Bars:** Standard color bars for checking printhead nozzles, mixes CMYK colors (A4 size).
- 🔧 **Ink Channels:** Printing a color bar with each ink channel, no ink mixing (CMYK – A4 size).

## 13.3.7 Media Settings

Media Settings Basic:



Save & Apply

Save as profile

Saved Profiles List

Delete Profile

HOME TrojanTwo

**Trojan** 2  
Powered by memjet.

Overview

Handling

Maintenance

Job library

Print queue

Diagnostics

Media settings

Basic Advanced

TOF mode:  Continuous  
 Diecut  
 Blackmark

Unwinder label position: Outside

Rewinder label position: Outside

TOF offset (mm): 0

BOF offset (mm): 0.1

Left offset (mm): 5

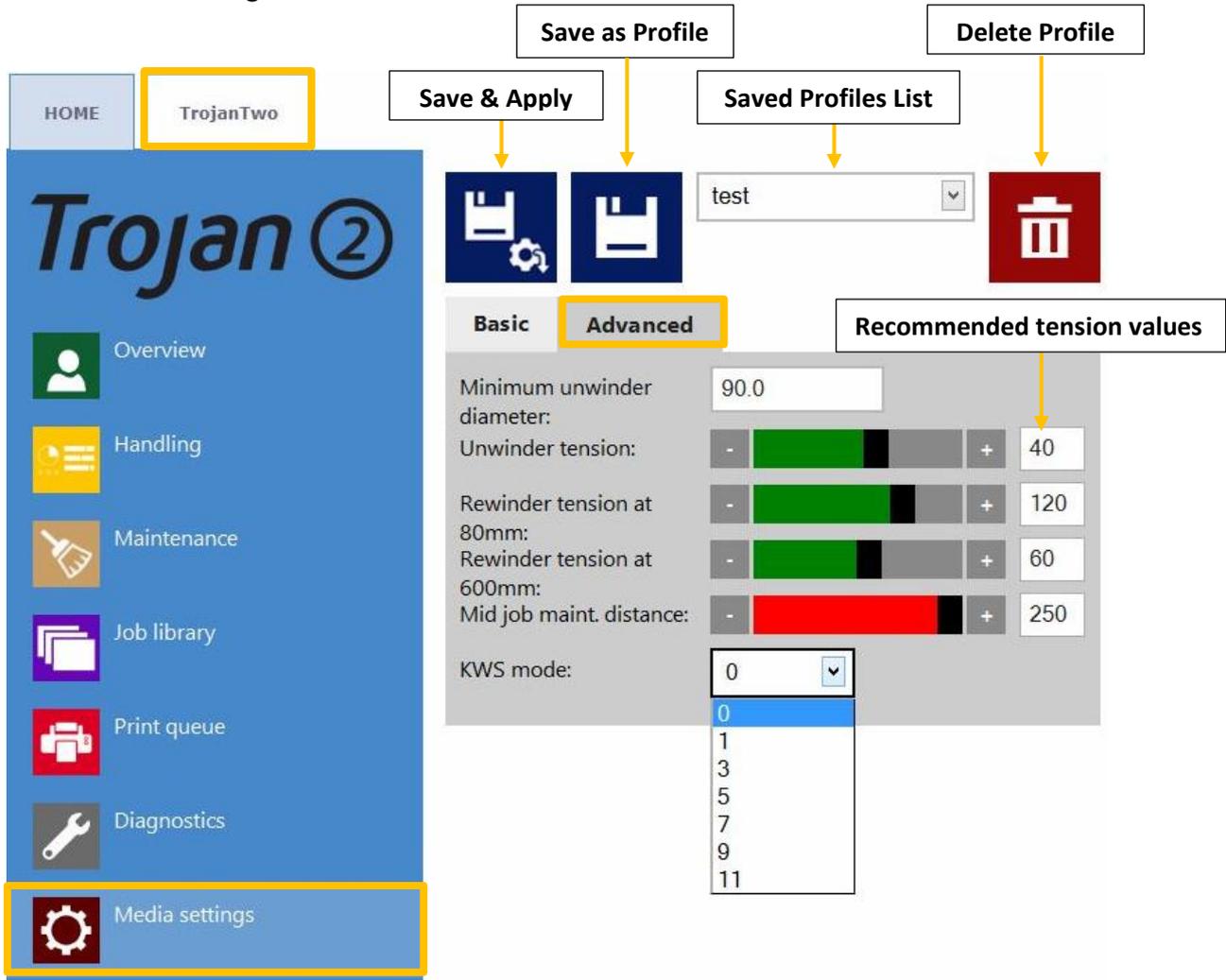
Square meter cost: 1

Gap size (mm): 3.0

test 1

- **TOF mode: TOF (Top Of Form)** depending on used label media:
  - **Continuous** (no gaps between labels)
  - **Diecut** (gaps between labels, the labels are pre die-cut on the liner)
  - **Blackmark** (pre-printed blackmarkings on the media, blackmarks can be outside or inside on roll.)
- **Unwinder label position:** Inside/Outside. Unwinder is rotating according to printing inside or outside of the label roll.
- **Rewinder label position:** Inside/Outside. Rewinder is rotating according to printing inside or outside of the label roll.
- **TOF offset (mm):** Top Of Form (top of label) can be +/- depending on moving the top of the image up or down on label. **NOTE:** limits -160mm ⇔ +160mm
- **BOF offset (mm):** Bottom of Form (bottom of label) can be +/- depending on moving the bottom of the image up or down on label. **NOTE:** limits 0mm ⇔ 100mm
- **Left offset (mm):** Moving printed image towards left or right compared to the left edge of the printhead. **NOTE:** limits -127mm ⇔ 222mm
- **Square meter/Label cost:** Price of one label for die cut material. Square meter price for Continuous and Blackmark label material. Used for total cost/label calculation. (See section 13.2.3)
- **Gap size:** Setting the gap size between printed labels. **NOTE: Maximum gap is 65mm.**

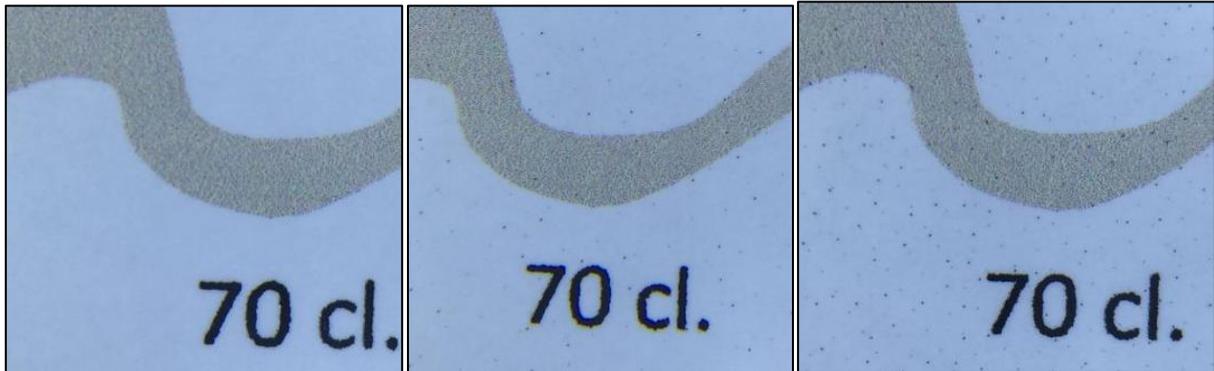
## Media Settings Advanced:



The screenshot displays the 'Media Settings Advanced' interface. The sidebar on the left includes 'HOME', 'TrojanTwo', and navigation icons for Overview, Handling, Maintenance, Job library, Print queue, Diagnostics, and Media settings. The main content area has 'Basic' and 'Advanced' tabs, with 'Advanced' selected. Settings include: Minimum unwinder diameter (90.0), Unwinder tension (40), Rewinder tension at 80mm (120), Rewinder tension at 600mm (60), Mid job maint. distance (250), and KWS mode (0). A dropdown menu for KWS mode is open, showing options 0, 1, 3, 5, 7, 9, and 11. Callouts indicate 'Save as Profile', 'Delete Profile', 'Save & Apply', 'Saved Profiles List', and 'Recommended tension values'.

- KWS mode:** KWS = Keep Wet Spitting  
 KWS is a function to protect the 70,400 printhead nozzles from dehydration. In practice it means that during printing all the nozzles fire some ink, even the nozzles which do not take part effectively in printing. As a result tiny (almost microscopic) dark spots of ink might be seen on printouts, especially when the background of the printed image is light in color. When those tiny spots are not acceptable from the print quality point of view, this function can be reduced or switched off completely.  
**NOTE:** See KWS levels on next page more detailed
- Minimum unwinder diameter (mm):** When roll diameter reaches the minimum unwinder diameter value, the printing will be paused and new label roll can be loaded and spliced. This sensor setting is to avoid running out from labels during a print job.
- Unwinder tension:** adjusting unwinder tension.
- Rewinder tension at 80mm roll diameter:** adjusting rewinder tension for the beginning of a roll up.
- Rewinder tension at 600mm roll diameter:** adjusting rewinder tension for the end of a roll up.
- Mid job maint. Distance (meter):** Setting mid-job maintenance frequency in printed linear meters. Mid-job maintenance is a full printhead maintenance during processing a print job to preserve best print quality.  
**NOTE:** Actual value is always displayed at status bar on the screen

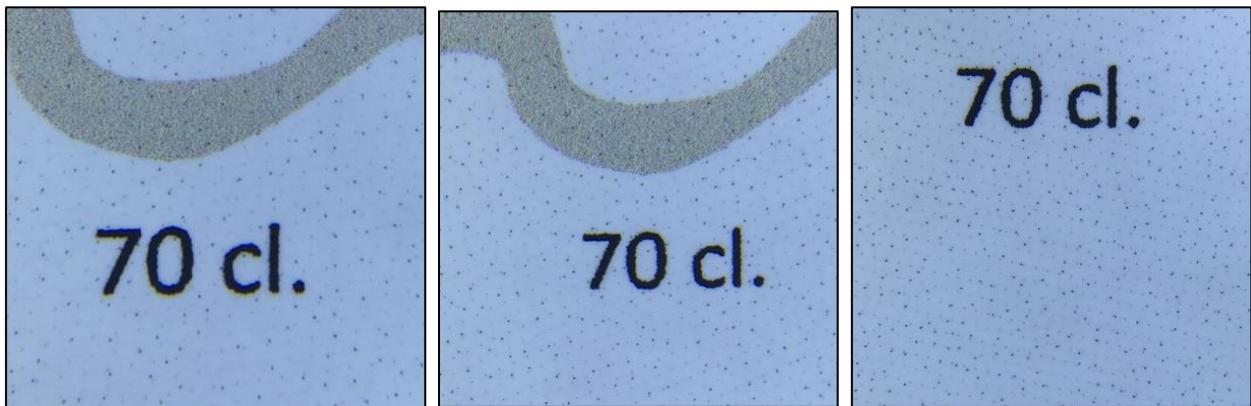
- KWS levels:



*KWS level 0*

*KWS level 1*

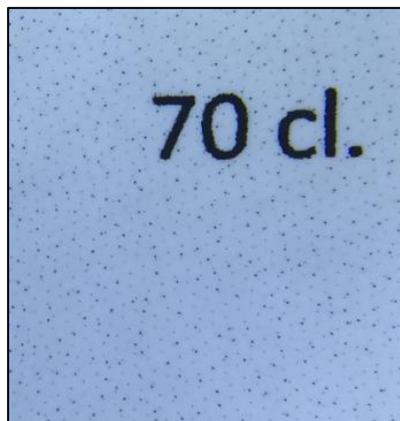
*KWS level 3*



*KWS level 5*

*KWS level 7*

*KWS level 9*



*KWS level 11*

**WARNING:**

The degree of KWS has effect on printhead life. The higher KWS is set the more protection the printhead gets against dehydration of nozzles. **ALTHOUGH** switching KWS off (0) does not result in losing warranty for the printhead, it is still advised to enable KWS and set it to a level where the small dots are still acceptable in terms of print quality.

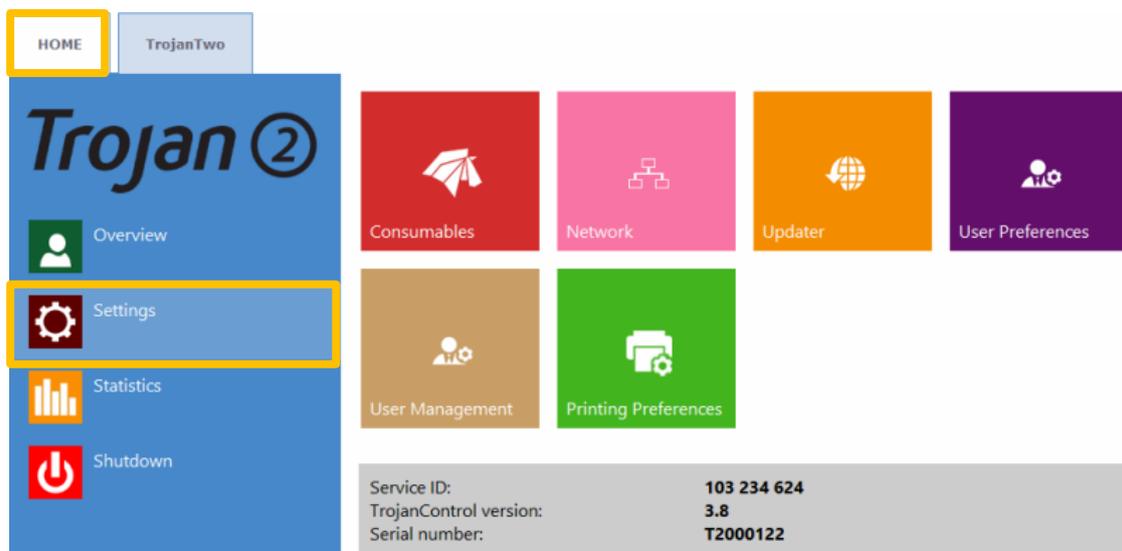
## 14 Updating software and firmware on TrojanTwo

Trojanlabel is regularly updating the Trojan Control interface and the firmware for the TrojanTwo press. Each time when a new update is available a newsletter or a technical bulletin is sent out to customers.

- If internet connection is available for the TrojanTwo, then updating is done over the internet by just pressing the download button and going through the installation process.
- If internet connection is not available for the TrojanTwo directly, then offline update package can be downloaded from our extranet and updating can be done via the local network.

### 14.1 Updating via online updater

The updater section can be found in **HOME -> Settings...** at Trojan Control. Actual software version can also be checked at HOME -> Settings... section.



*Actual Trojan Control software version in HOME-> Settings... menu.*



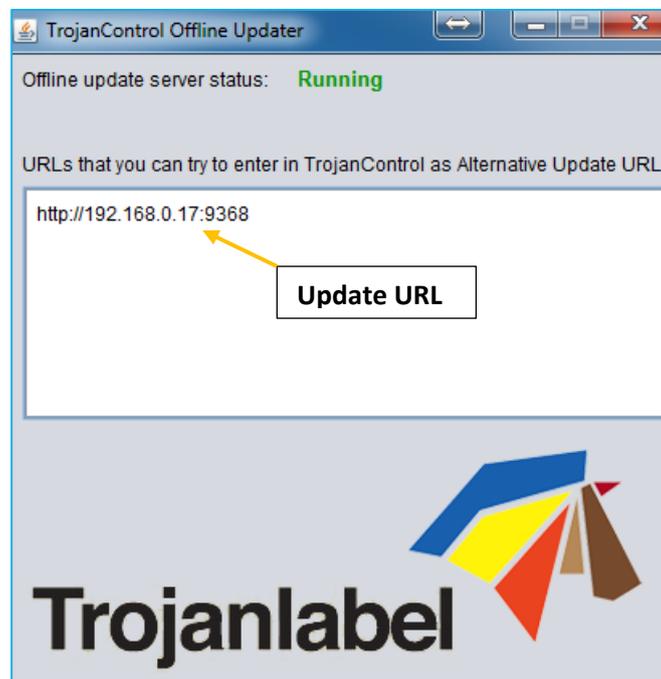
- Make sure the TrojanTwo press is connected to the internet.
- Make sure that 'Alternative update URL' field is empty.
- NOTE:** the 'Alternate update URL' field is reserved for customized updates and for offline updating.
- Press green download button.
- Installation starts automatically.
- Press '**NEXT**' button when asked during the installation.
- Check Trojan Control version number after installation.
- NOTE:** The Trojan Control may restart several times during the update process.
- After updating the Trojan Control interface the updater is detecting current Firmware version and will start updating the TrojanTwo firmware when needed.

## 14.2 Updating via offline updater

- The actual offline updater package can always be downloaded from Trojanlabel extranet in zipped format.
- Copy and unzip the updater package on a user PC which is connected to the same network as the TrojanTwo press.
- Double click on 'OfflineUpdaterGUI.jar' to start the update server.

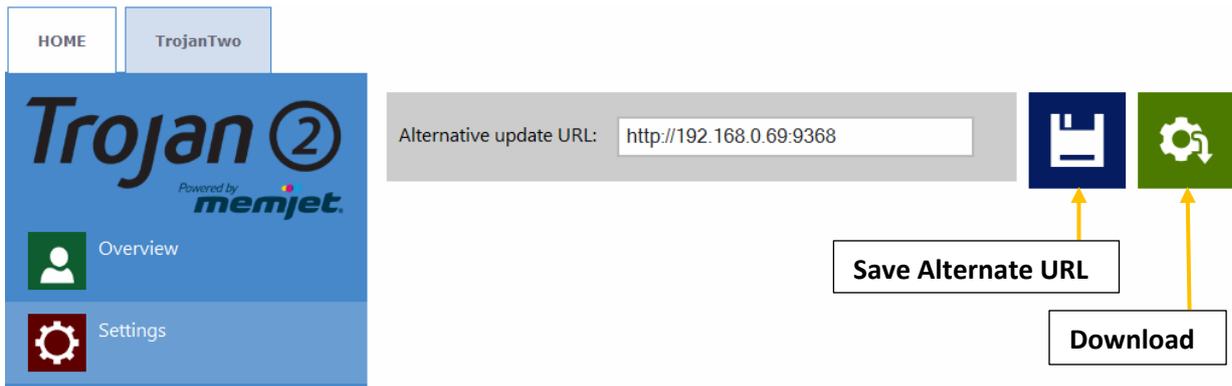
[.]	<DIR>	2015.01.28
[lib]	<DIR>	2015.01.28
[TrojanControl Offline Updater.app]	<DIR>	2015.01.28
[updates]	<DIR>	2015.01.28
OfflineUpdaterGUI	jar	116 963 2014.11.18
README	TXT	1 332 2014.11.17
start	sh	43 2013.04.04
start	vbs	110 2013.04.04

- The update server window will open up. The window should be left open as long as the update is going on.

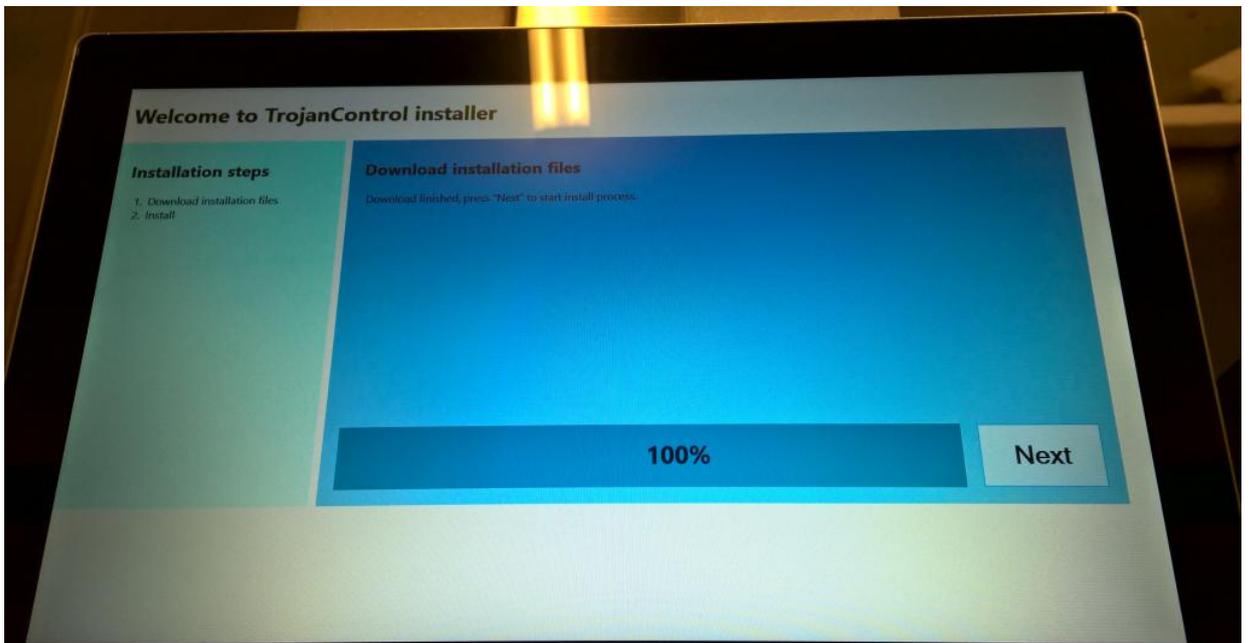


*Running update server on user PC.*

- The update server will provide an update URL (usually with the IP address of the certain user PC).
- Type the update URL into HOME-> Settings...-> 'Alternate update URL' field and press save button:



- Press green download button.
- Installation starts automatically.
- Press 'NEXT' button when asked during the installation.



*TrojanTwo is being updated...*

- Check Trojan Control version number after installation.
- **NOTE:** The Trojan Control may restart several times during the update process.
- After updating the Trojan Control interface the updater is detecting current Firmware version and will start updating the TrojanTwo firmware when needed.

## 15 Maintenance

### 15.1 Regular cleaning/checking tasks

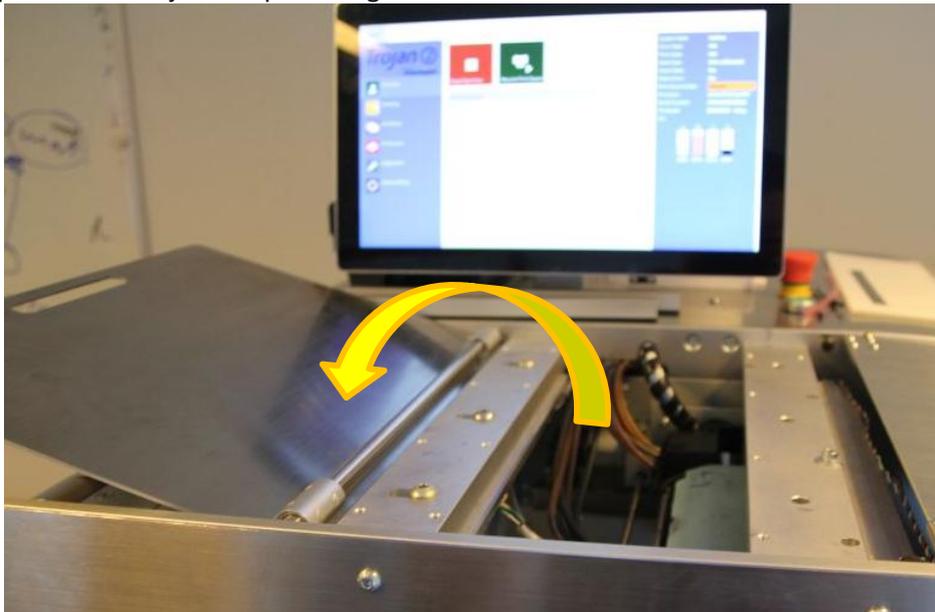
#### 15.1.1 Wipe down surfaces

- **Cleaning the NIP roller:**

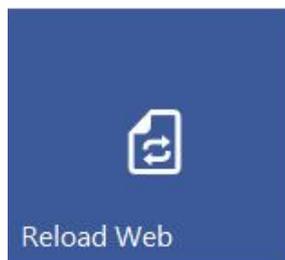
The NIP roller is a rubber covered roller and can collect a lot of paper dust. Based on weekly visual checking it is recommended to clean the roller when it looks covered with dust.

**Steps:**

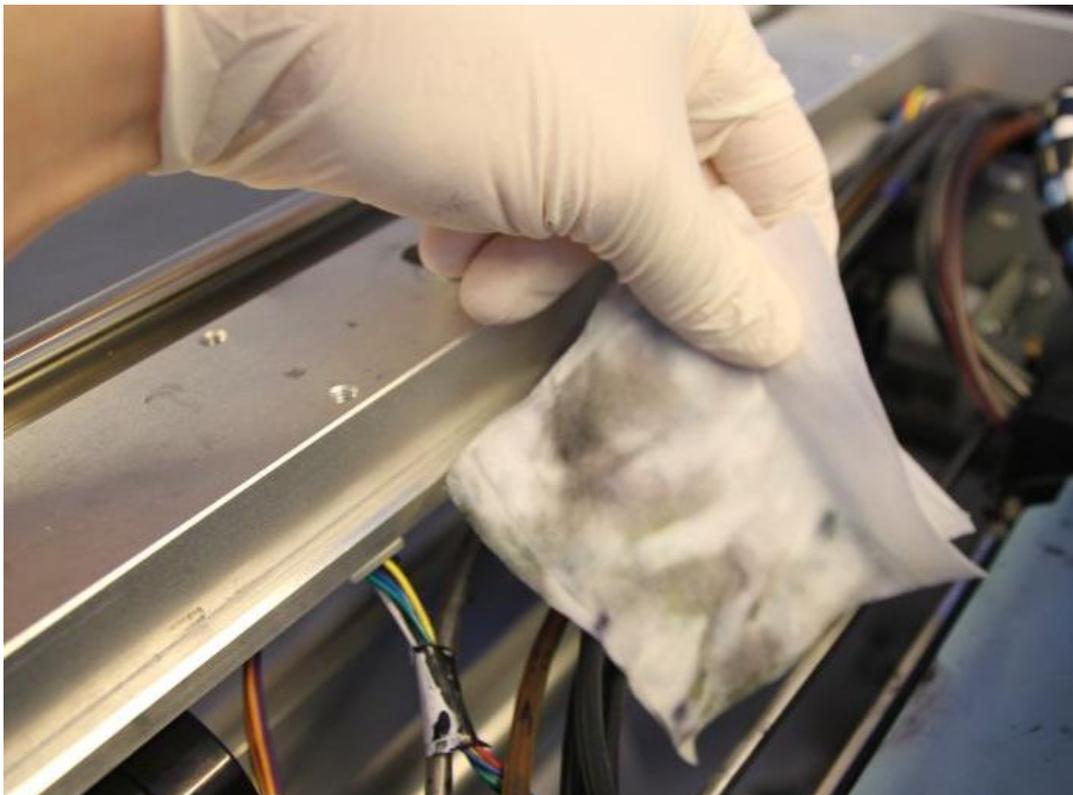
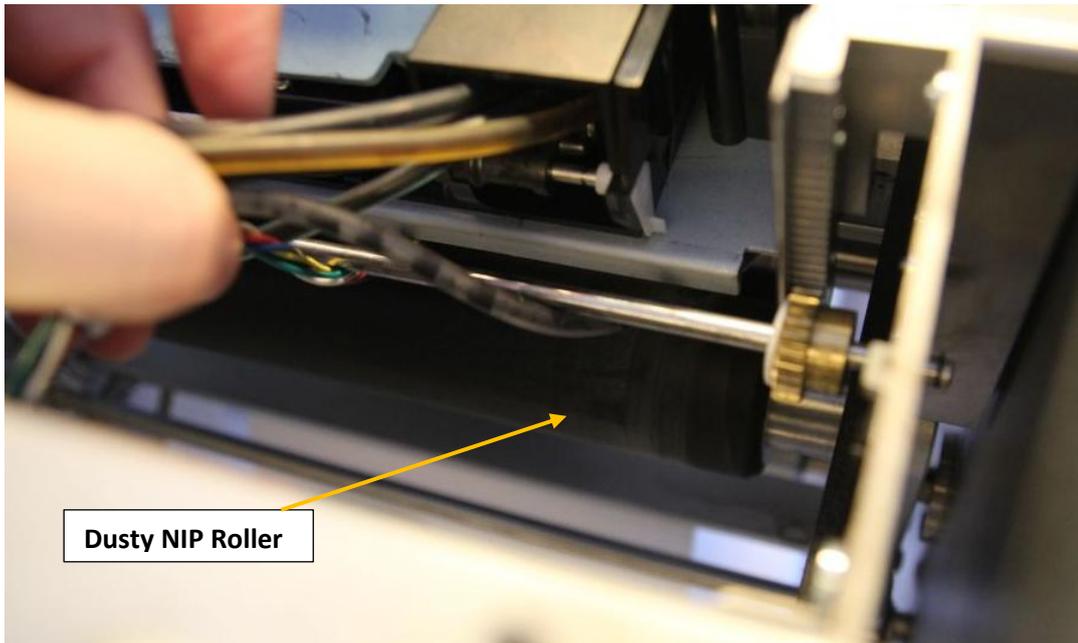
1. Open top cover on TrojanTwo press to gain access:



2. Press 'Reload Web' button in TrojanTwo -> Handling menu to release NIP roller brake (when web is calibrated the NIP roller is tight and cannot be rolled manually)



3. Wiping dust and debris off from NIP roller using lint free cloth and distilled water



*Use a wet lint-free cloth and roll NIP roller to wipe off dust from all over the NIP roller.*

- **Cleaning other rollers**

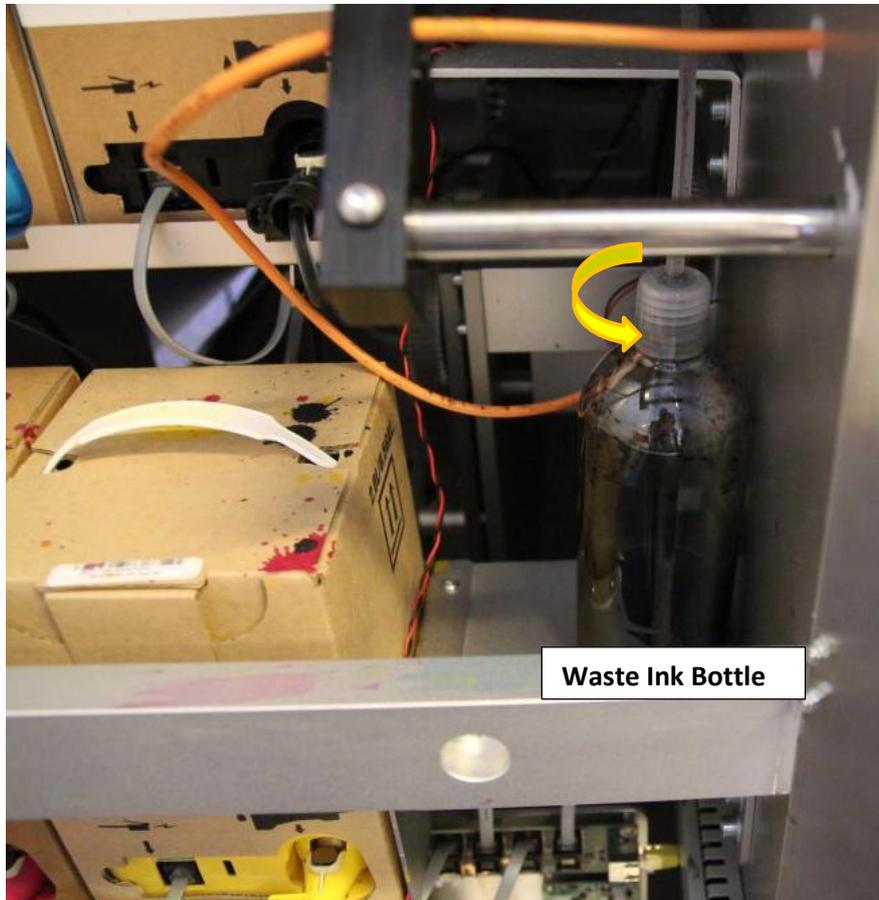
Visually inspect rollers throughout the paper path and use a lint-free cloth and distilled water to wipe the ink off from the rollers one by one. Remove label web from paper path if necessary to gain access to all rollers.



*Wipe each roller using a lint-free cloth and distilled water.*

### 15.1.2 Emptying waste ink bottle

- Maintenance routines which protect the printhead produce some waste ink. This waste ink goes to the waste ink bottle. **The waste ink bottle is located near the ink tanks on the right.**
- It is advised to check waste ink bottle frequently and emptying when it is almost full.



**NOTE:** Keep a piece of cloth/paper towel/sponge nearby to avoid dropping of ink from tubing when removing the cap of the bottle.

### **WARNING!**

**The ink might be considered as Hazardous Waste in some countries. Make sure you fill the waste ink from the bottle into a separated tank and disposal is done according to the local regulations!**

**Material Safety Data Sheets (MSDS) for the Trojan ink can be downloaded from Trojanlabel extranet.**

## 15.2 Replacing the wiper roller

The wiper roller (microfiber roller) is a wear and tear part and needs to be replaced as it wears down. It is advised to change the wiper roller at least after every 6 months.

Signs that the wiper roller might need replacement:

- If surface of the wiper roller looks shiny and not 'fluffy' anymore, then wiper roller is worn down and needs replacement.
- If printhead wiping routines (like wipe printhead or light/medium/heavy clean) do not improve print quality and fine streak(s) remain on the printouts after the routines multiple times.
- If ink puddles remain on the printhead surface after the wiper roller wiped.

Part number:	Part description:
10003356	T2 Wiper Roller Gen 2 (Micro Fibre Roller)

**Required equipment:**



**Replacing the wiper roller:**

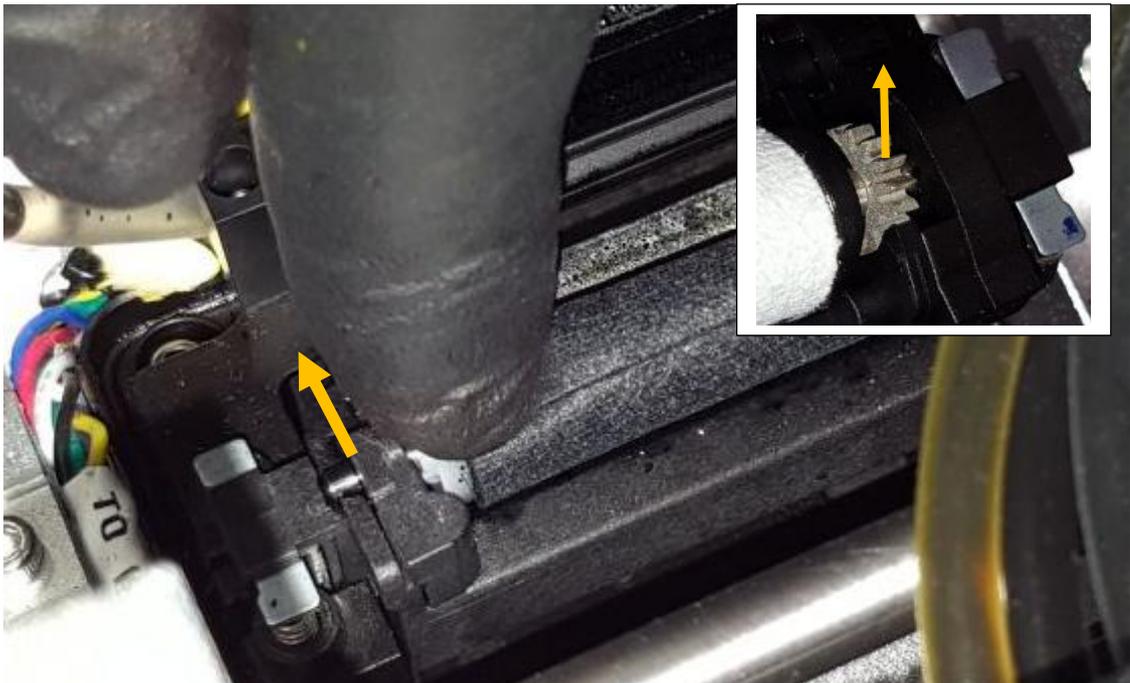
1. Open top cover on machine:



2. Press Home Maintenance Module button in TrojanTwo -> Handling menu to gain access to the wiper module:



3. Detach and remove the used micro fibre roller (MFR):



*Pull the micro fibre roller out from under the plastic latch*



*Micro fibre roller out.*

On the right side where there is a gear mounted to the micro fibre roller, just lift out the gear from the wiper motor gear house.

4. Install new wiper roller:

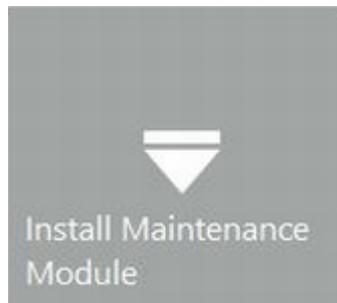


*Fit the gear on the right end of the micro fibre roller onto the proper place from above. The gear has to fit to the gear of the wiper motor.*



*Push the axis of the micro fibre roller under the plastic latch until it clicks onto the right place.*

5. Press Install Maintenance Module button at TrojanTwo -> Maintenance menu to move maintenance tray back into the proper position.



### 15.3 Manual printhead wiping

The manual printhead wipe has 3 functions, these are:

- Cleans printhead nozzle surface from waste ink, dust, debris, particles.
- Prevents dehydration of the printhead nozzles.
- Forms a wet film layer on the printhead nozzle surface thus creates some vacuum and help to prevent air bubbles blocking some nozzles.

It is advised to perform a manual printhead wipe at least once a week.

#### **WARNING!**

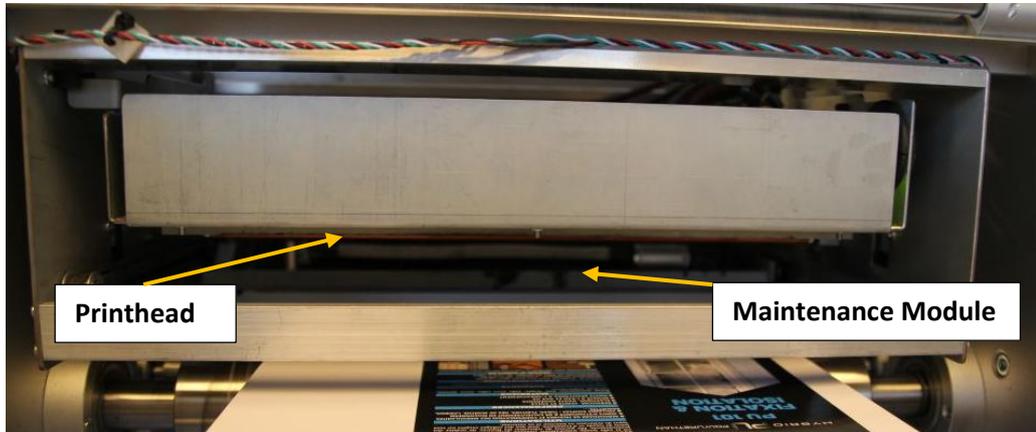
**Only use Distilled or De-Ionized Water for cleaning the printhead!  
Never use any chemicals or alcohol for cleaning/wiping the printhead!  
Chemicals and alcohol are damaging the printhead nozzles.**

- Required equipment:

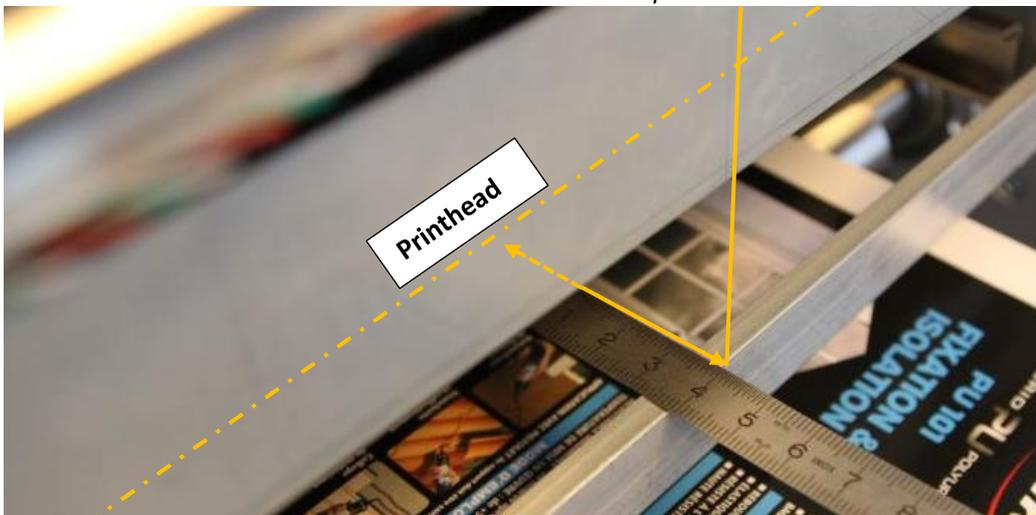


- **Manual wiping process:**

1. Open cover on TrojanTwo press to gain access to the print engine.
2. Press Home Maintenance Module button in TrojanTwo -> Handling menu to gain access to printhead from below:



*Maintenance module in home position.*



*The printhead is situated 40mm from the edge of the print engine.*

3. Use Distilled water and make a piece of lint-free cloth wet:



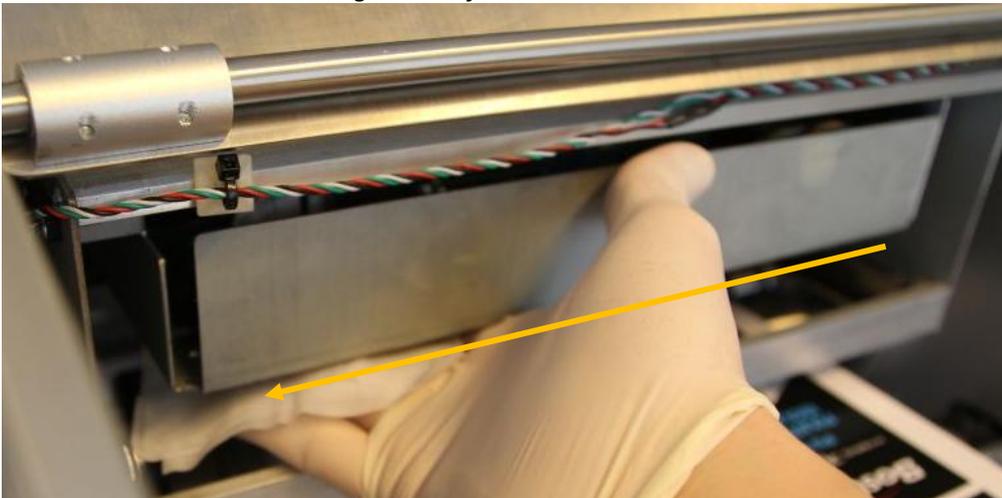
*Wet lint-free cloth*

**NOTE:** USE LINT-FREE CLOTH ONLY! As loose fibers can block printhead nozzles from other materials.

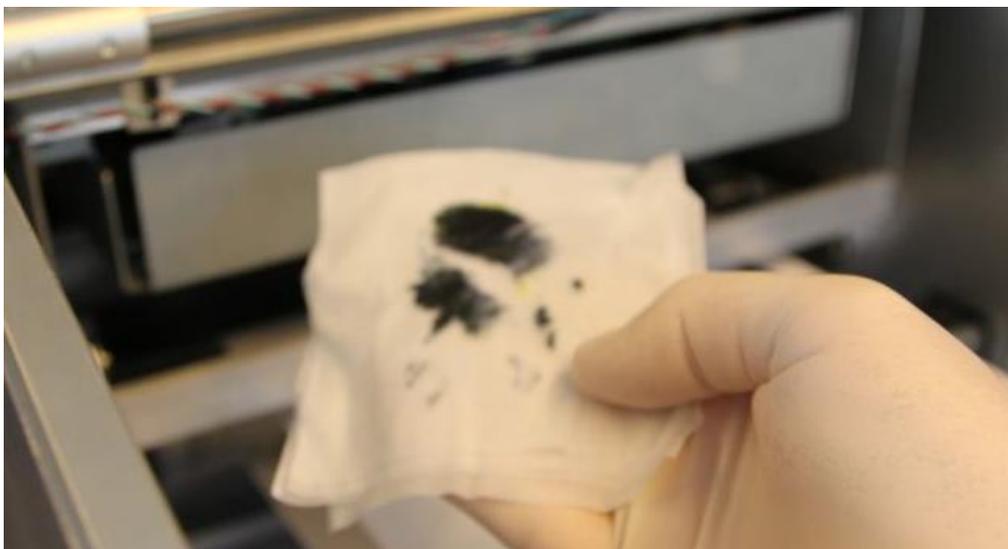
4. Wipe printhead surface:



*Make a single move from one end to the other.*



**NOTE:** DO NOT MOVE THE CLOTH BACK AND FORTH! Always wipe with a single move.



*Wiping finished.*

## 16 Trouble shooting

This section will help you trouble shoot various error states and scenarios.

### 16.1 Error States

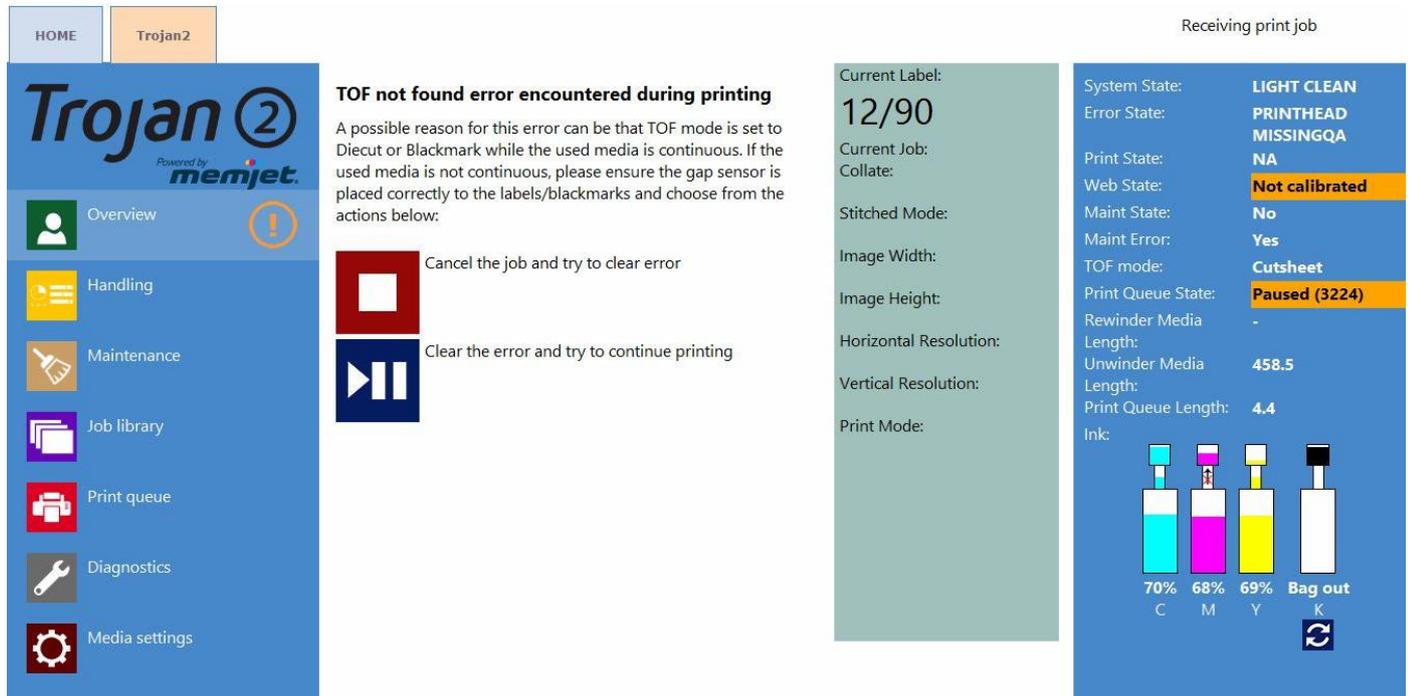
Problem	Solution
Web status display: <b>Error (1)</b> is displayed after pressing the Green start button and the initialization process has been running for a while (10-20 seconds).	The initialization of the web-path routine failed during start up, usually due to a time out of the initializing process. Press the emergency button, wait 5 seconds and release it again. Then press the Start button, to restart the web-path initialization.
Web status display: <b>Error (1)</b> is displayed after pressing Calibrate Web.	Two scenarios: A) The label material is loose (core spins or is not firm). Try to reduce tension on the unwinder or fixate the core to the material B) The unwinder and/or rewinder shafts are not tight. Tighten winders by turning the knobs.
Web status display: <b>Error (2),(3) or (4)</b>	Stepper motor 2, 3 or 4 failed to calibrate. This is not usual, press emergency stop to recalibrate. If this happens frequently please contact support. Possible reasons: A) Stepper motor NIP brake (2) and/or stepper motor rewinder brake (3) and/or stepper motor unwinder brake (4) fails to calibrate. B) Magnet position for stepper motor sensor(s) need to be adjusted C) Check cabling of the stepper motor(s) D) Stepper motor(s) factory calibration parameters are not correct E) Flexible coupling for stepper motor(s) is loose F) Stepper motor sensor board is damaged G) Stepper motor is damaged
Web status display: <b>Error (5)</b>	Unable to calibrate tension for the web path system. Contact support Possible reasons: A) Paper core is not tightened on winder shafts B) There is tension on the web path system when calibration starts (like brake(s) are closed C) Too much loose media on winder cores
Web status display: <b>Error (6)</b>	When dancer arm(s) fall back to stop position during printing or moving the web. Possible reasons: A) If paper core is not tightened on winder shaft B) If there is an issue with the unwinder and/or rewinder brakes C) Tension settings are set too low at TrojanTwo -> Media Settings -> Advanced menu D) Label material brakes (like ripping apart due to too high tension) E) Label material runs out during print (diameter watch maybe set too low at TrojanTwo -> Media Settings -> Advanced menu Contact support

Web status display: <b>Error (7)</b>	Motor safety switch is shorted, please contact support. Too high input current for BLDC driver causes Emergency Board relays to hang.
Web status display: <b>Error (8)</b>	Factory calibration variables loaded, please contact support
Web status display: <b>Error (9)</b>	Incompatible FPGA Version, please contact support
Web status display: <b>Error (10)</b>	BLDC calibration check failed, please contact support
Web status display: <b>Error (11)</b>	Rotary spi failed, please contact support
Web status display: <b>Error (12)</b>	Dancer arm(s) are not in stop position when calibration starts, please contact support Possible reasons: A) Zero point calibration for the dancer arm(s) needed B) There is already tension on the web when calibration begins (example: unwinder and/or rewinder brakes are closed)
Error display: <b>"Missed TOF Error"</b>	A) The gap size may be too short. Adjust "Gap Size" in media settings in case Tof mode is continuous B) Make sure label gap/blackmark sensor is calibrated in case TOF mode is set to diecut or blackmark C) Make sure that by all means the gap between labels is within the supported range
The bottom of the label looks unfinished, showing a yellow/green line.	This is caused by the image being 'truncated' by the print size. The Print Head prints in the order of Y, K, C, K, and M. The reason why a dark green line shown is because the printhead stops printing after Y, K and C are printed.  Therefore, the solution is to change the BOF and allow the PH to print until the full image is printed.
Error display: <b>"Data Path Underrun Error"</b>	A) Make sure preview generation is not set to 'Instantly' B) Reduce image complexity C) Reduce compression when using the RIP software D) Check design of artwork file. Check for overreaching background objects in the printed image which can confuse the machine as those over the specified label size.
Error display: <b>"PRINthead FAULTY"</b>	Communication error with the printhead. One or more segments of the printhead cannot be read. A) Contact support. B) Try with another printhead C) Check RJ45 cables for Printhead communication, replace with Cat5e or Cat6 cable versions
Error display: <b>"Printhead Missing QA"</b>	Printhead is not installed physically or printhead QA chip cannot be read out. If printhead is installed but not recognized, then check/clean contact pins and reinsert the printhead. If cleaning the contact pins does not solve the issue, then try with another printhead or contact support.
Error display: <b>"Maintenance Jam"</b>	The maintenance tray movement is blocked physically or maintenance tray's position is not calibrated or unknown to the system. A) Use the red button at HOME ->Settings->Network menu to restart the user interface and print engine. When the print engine is starting up it does a maintenance tray calibration.

	<p>B) Try to move the maintenance tray manually and check if the tray can move freely on the rails. Then use the red button at HOME-&gt; Settings-&gt;Network menu to restart the print engine. Contact support if A) and B) options cannot solve the issue</p>
<p>Error display: "Bag Out"</p>	<p>One or more ink tanks are out of ink. Replace the empty ink tank and press refresh button on screen</p>
<p><b>One or more ink lines are not filling up with ink</b></p>	<p>There is excess air introduced into the ink system and causes pressure loss.</p> <p>A) Do a manual wet wipe on the printhead (see section 15.3 for manual printhead wipe.</p> <p>B) Reinsert the printhead</p> <p>C) Check revolvers (fluidic couplings which connect with the printhead couplings), there might be a loose revolver cap -&gt; contact support</p> <p>D) Check ink tubes throughout the ink delivery system for any loose luers, ink leaking etc.</p> <p>E) Try with another printhead</p> <p>F) Contact support</p>
<p><b>The TrojanTwo tab is not displayed on the screen</b></p>	<p>A) The printhead is damaged (nozzles are scratched) and ink ingress causes short circuit and pulls down the mainboard of the print engine -&gt; most likely the print engine mainboard keeps on restarting all the time. Solution: Remove the printhead and install another printhead.</p> <p>B) There is a damaged print job in job library which has to be deleted from the file system. Contact support.</p>

## 16.2 Error messages on screen

When an error happens instructions and error messages can appear on the screen.

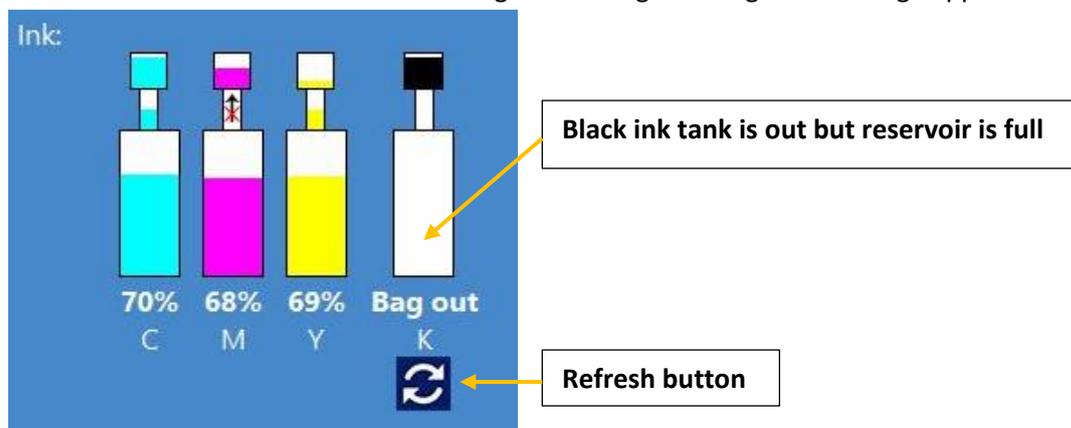


### 🚩 Missed TOF (Top of Form)

Wrong TOF mode is selected at Media Settings menu or gap/blackmark sensor is not calibrated (see section 10 for printing modes and sensor calibration).

### 🚩 Bag Out error

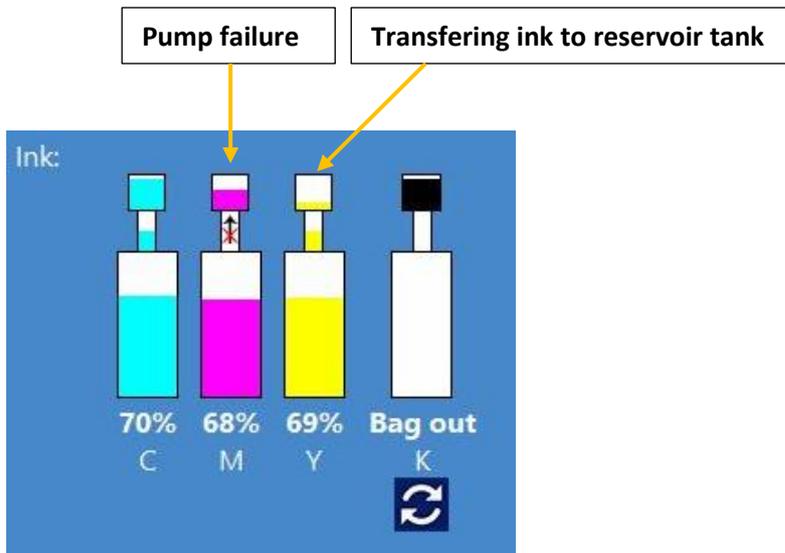
One of the ink tanks run out of ink during printing. The printing continues as reservoir ink tanks are full. User can hot swap ink tank(s) and press refresh button on screen to clear the error message after new ink tank is installed. Ink tank sign is flushing and 'Bag out' message appears in status bar.



## Ink Transfer failure

When a crossed out arrow appears in status bar. This means that pump cannot bring the ink up from the ink tank to the reservoir tank. Can be pump motor failure, like encoder wheel on motor is filthy or pump stuck, electrical failure etc. Contact Trojanlabel support when this happens.

**NOTE:** When pump is transferring ink from the ink tanks to the reservoirs, then ink movement is simulated on the screen between large ink tank and smaller reservoir tank status bar.



## Running out of disc space

When new print job is sent to the machine but free disc space on hard drive reaches the 1 GB limit. For example the amount of print jobs stored in the job library occupies most of the disc space. Then the actual print job is paused and a warning sign appears on the upper right corner on the screen until enough disc space is freed up. Extra disc space can be gained by deleting some print jobs from the job library. When disc space is enough to continue the actual print job, then warning sign disappears and print job continues.



Receiving print job

*Warning sign to indicate low free space level on built in hard drive*

### 16.3 Firmware update failure

If an error happens during the FW update process, the text color changes to red to indicate error state. The progress bar might still show progress and counter but the update process will not be successful. To resolve the issue and finish the firmware update, please shutdown the full system and start again. After the reboot (power on), the emergency restore process will take over and try to finish the update (there is no visual feedback about this). When second update attempt is finished, it will automatically restart the system which should be up to date after the restart and printer (TrojanTwo) tab will appear on screen.

If for some reason the second recovery attempt fails, please contact Trojanlabel support



#### Firmware update (Step: 5/5)



*Firmware update text changed to red.*

## 17 Slitter for the TrojanTwo

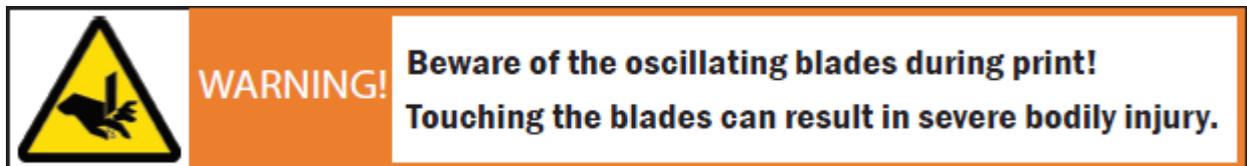
### 17.1 Purpose

The slitter option is an in-line slitter that works perfectly with die cut label material. Slit up to four (4) rolls, with the three (3) easy to replace oscillating blades that ensures long life time and perfect cuts. The blades can be placed in any position or moved to the side when not in use.

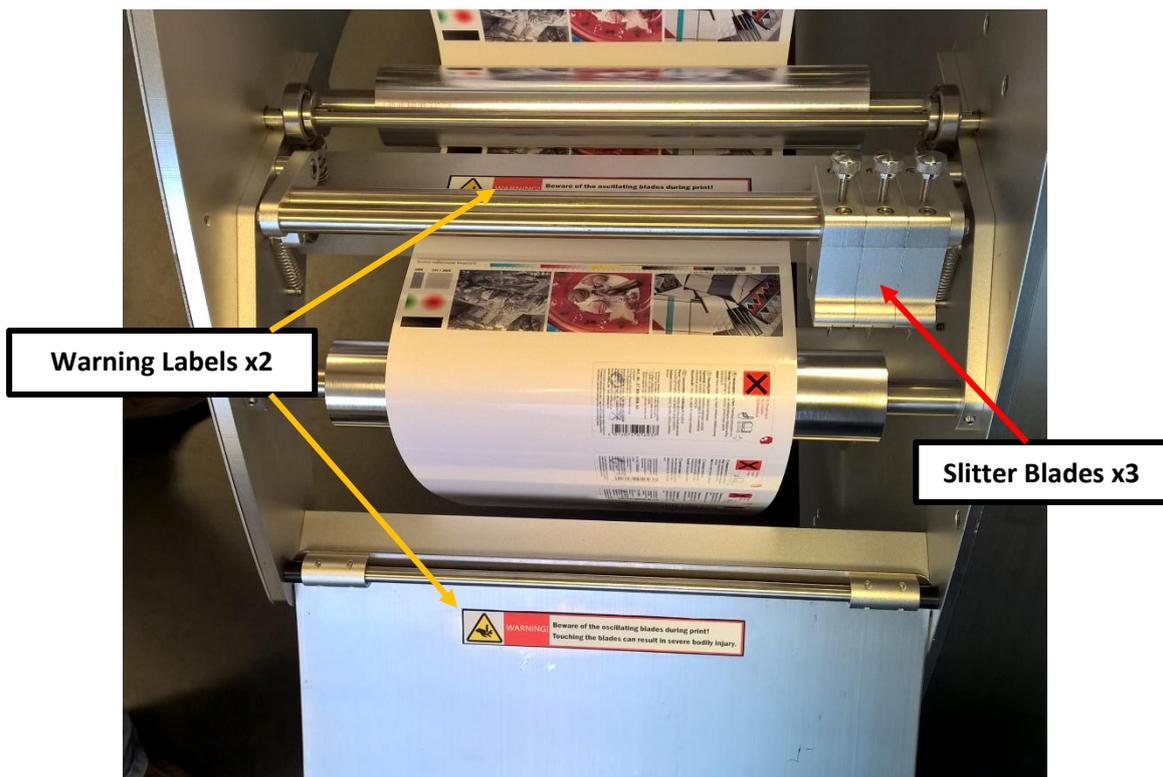
The slitter is an optional accessory for the TrojanTwo press and not included by default.

**NOTE:** As the slitter was introduced at late 2015, the earlier batches of TrojanTwo presses do not contain the fitting holes for installing the slitter components. The solution can be retrofitted, but it does require drilling two holes. The remainder of the system fits into the current architecture. The new batches from late 2015 are prepared for installing the slitter at any time.

### 17.2 Safety Labels



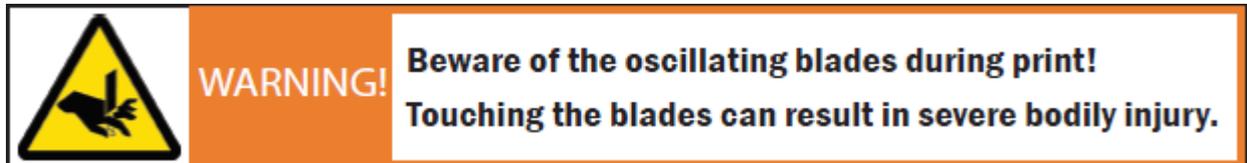
There are two warning signs need to be put on to the TrojanTwo press when the slitter is installed:



### 17.3 Replacing Blades

The blades for the slitter are consumables and recommended to be replaced when sharpness decrease is detected.

**CAUTION:** Never try to replace the slitter blades during operation!



- a) Press Emergency Stop button on top of the TrojanTwo press to power off slitter device



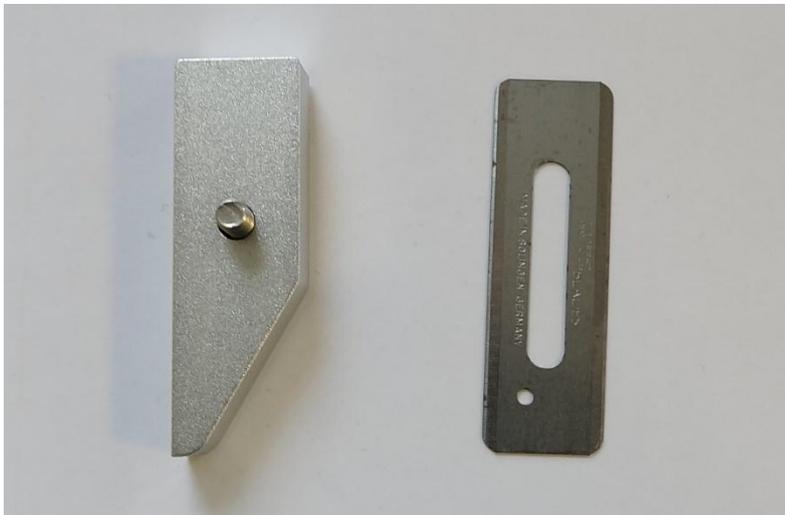
- b) Move the slitter blades to the right side:



- c) Loosen the screw which fixes the blade into the socket, use Allen key (size: 3mm) for loosening the screw.



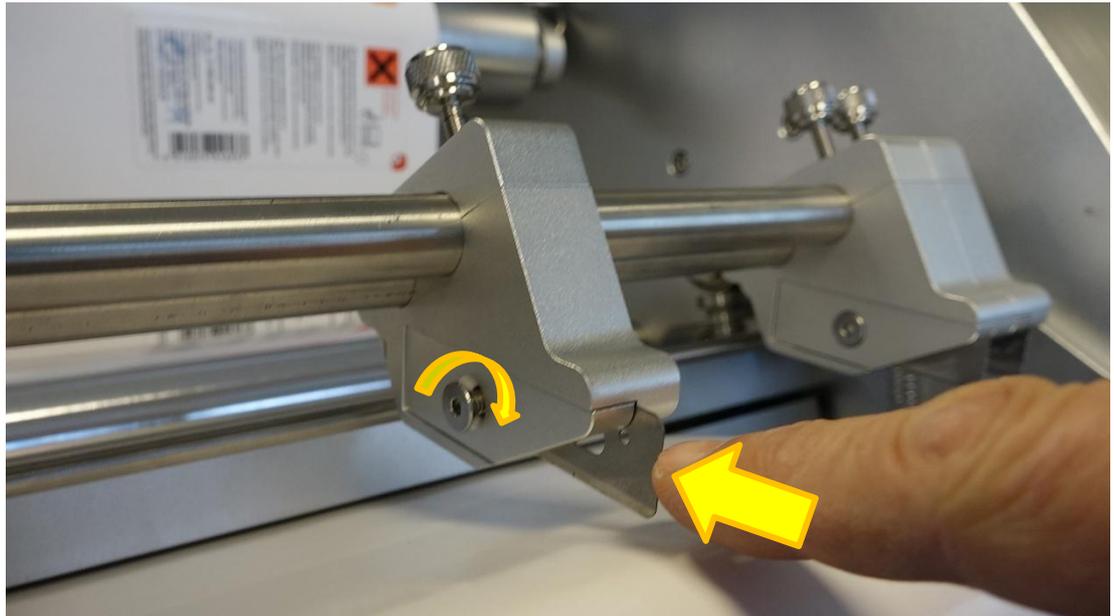
- d) Replace the blade and tighten the screw again.



a.

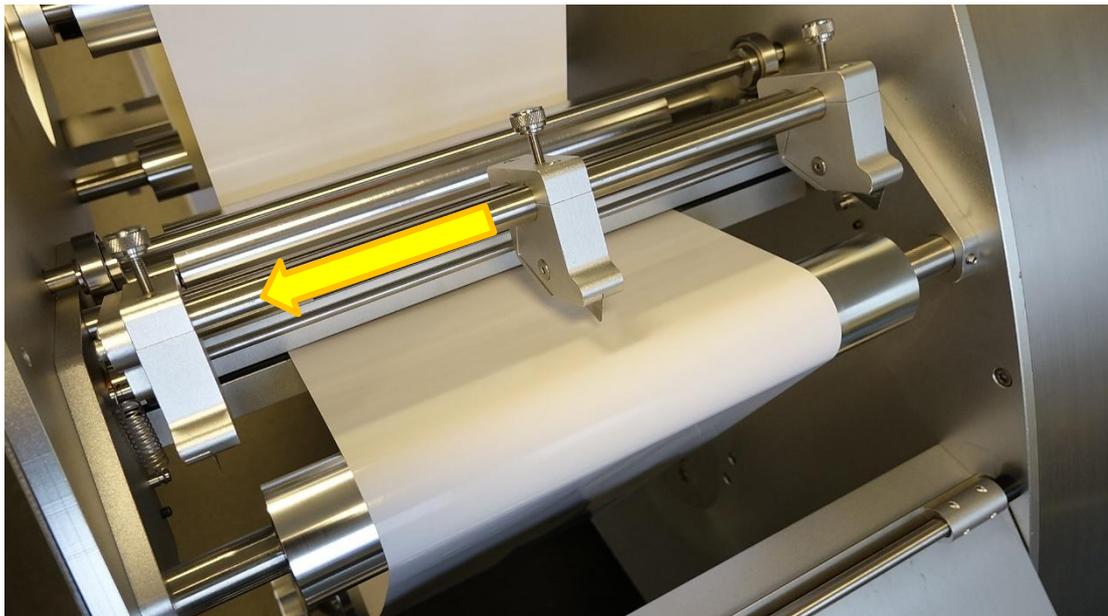


b.



c.

- e) Move each blade to the left after finished with changing the blades one by one to have better access to the rest of the blades.



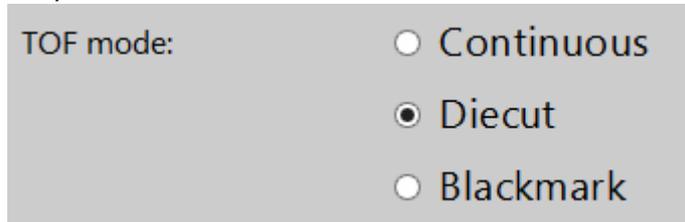


## 17.4 Software settings and usage

### 17.4.1 Enable Slitter in TrojanTwo User Interface

**NOTE:** The slitter function is visible and enabled in the user interface if the slitter device is installed.

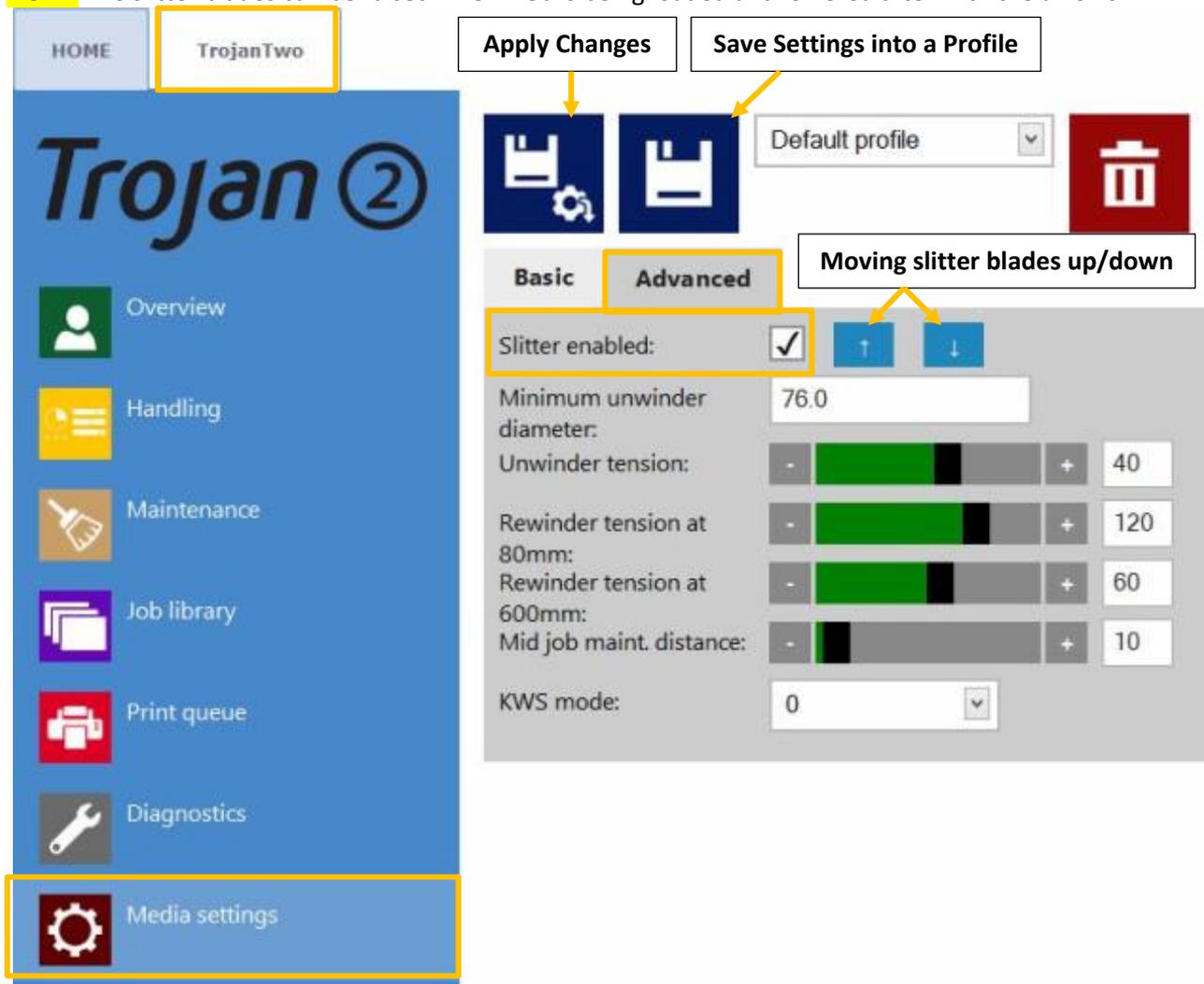
- The slitter device only works if TOF mode is set to Die cut in the Media Settings menu



*Die cut mode selected at TrojanTwo -> Media Settings... -> Basic menu*

- Select Slitter checkbox on the TrojanTwo -> Media Settings... -> Advanced menu

**NOTE:** The slitter blades can be raised when web is being loaded and lowered after with the arrows.



*Slitter enabled at TrojanTwo -> Media Settings... -> Advanced menu*

- Slitter enabled status appears in status bar:

