User Guide

English

ThermoFlex Narrow Hybrid

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Getting Started

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About ThermoFlex Narrow Hybrid

Your *Kodak ThermoFlex* Narrow Hybrid platesetter uses thermal imaging technology featuring a multibeam, variable-resolution thermal imaging head. The *ThermoFlex* Narrow Hybrid platesetter meets all your flexographic and other needs for package printing.



Note: *ThermoFlex* Narrow Hybrid in this document refers to the *ThermoFlex* Narrow Hybrid platesetter, the *ThermoFlex* Narrow Hybrid platesetter with Offset option, and the *ThermoFlex* Narrow Hybrid platesetter with Magnetic Drum option.

The *ThermoFlex* Narrow Hybrid platesetter can image a full-size, top-quality flexographic plate in less than 25 minutes. The exposure process is fully automated, including image-to-plate registration, drum balancing, RIP, and image queuing. Multiseparation and multijob placement on a single plate helps to reduce plate wastage.

Among the most useful features of *ThermoFlex* platesetters is dynamic drum balancing, which optimizes drum rotation stability during the imaging of a plate of any size in the specified size range.

To allow for variable resolution imaging, drum rotation speed is programmed to vary proportionally with the output resolution. This particular feature is unique to *ThermoFlex* platesetters and optimizes imaging speeds on the basis of output parameters.

The basic specifications of the *ThermoFlex* Narrow Hybrid platesetter are as follows:

- Media size: 762 mm x 152 mm (30 x 6 in.)
- Media thickness: wide focus range - 0.1 mm to 4.7 mm (0.004 in. to 0.155 in.)
- Imaging time: V speed imaging - 93.7 mm (3.69 in.)/min @ 2540 dpi

Getting to Know the Platesetter

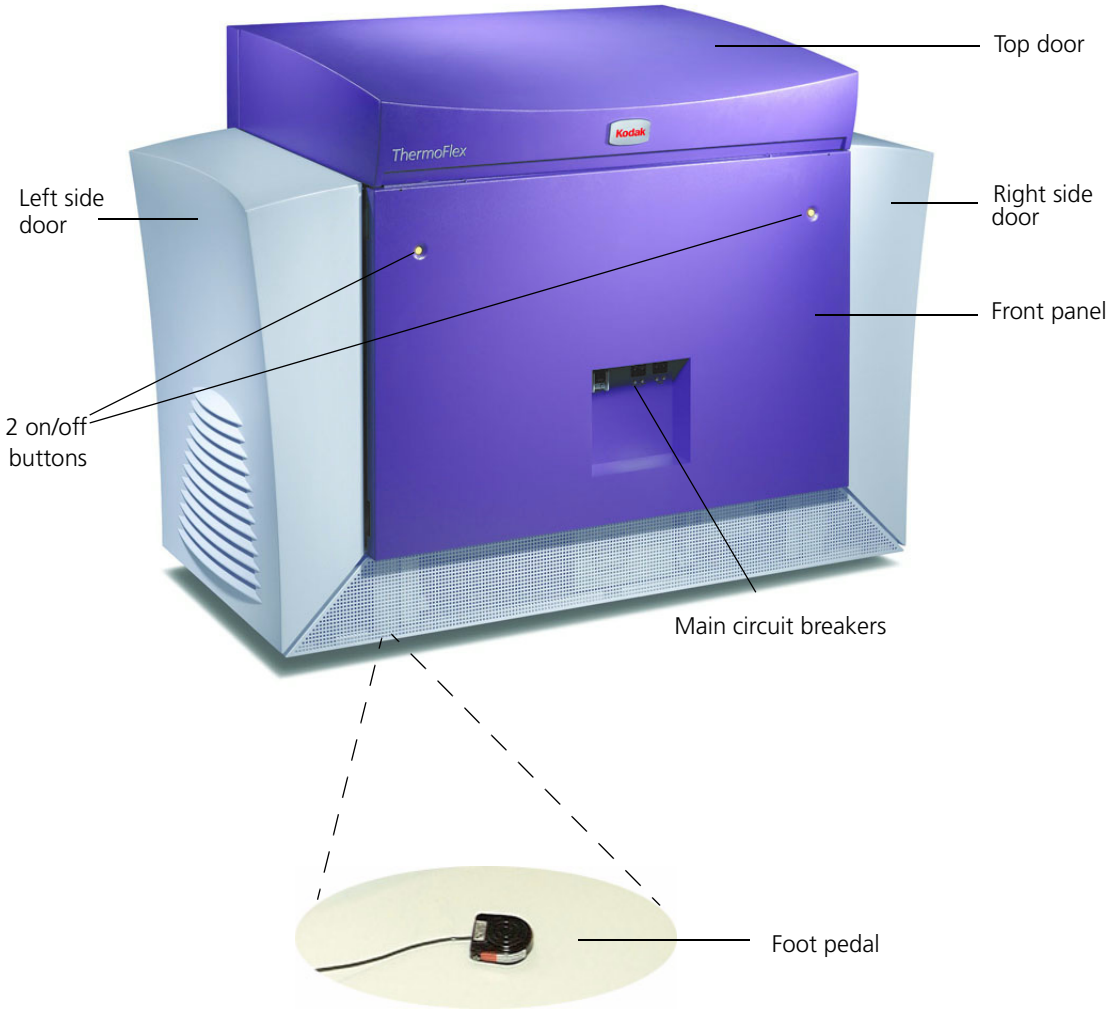


Figure 1: ThermoFlex Narrow Hybrid platesetter, front view

The main components of the *ThermoFlex* Narrow Hybrid platesetter are:

- The top door, through which you load and unload plates. You open the door from the *ThermoFlex* Controller software.
- The left side door, which provides access to the electronic box and *ThermoFlex* Controller computer
- The right side door, which provides access to the laser diode compartment
- Two on/off buttons, which you use to turn on and off the platesetter
- The foot pedal, which you use to turn on the drum vacuum system
- Circuit breakers:
  - The main circuit breaker: Before you turn on the platesetter, make sure that the main circuit breaker is on (set to 1). To completely disconnect the platesetter from the power supply, turn the main circuit breaker off (set to 0).
  - The vacuum pump circuit breaker: This circuit breaker controls power to the vacuum pump.
  - The drum circuit breaker: This circuit breaker controls the power to the drum.
  - The debris removal system circuit breaker: This circuit breaker controls the power to the debris removal system.

Typical Customer Site Configuration

The platesetter room may include:

- A *ThermoFlex* Narrow Hybrid platesetter
- A *ThermoFlex* Controller workstation, with the software that controls the operation of the platesetter
- A workflow workstation, which processes jobs
- The Universal Debris Removal Cabinet (UDRC) debris removal system. For more information, see the Universal Debris Removal Cabinet Operator Guide.

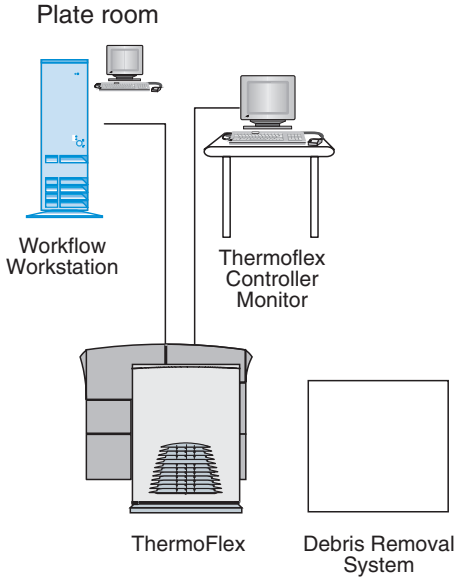


Figure 2: Typical configuration at customer site

Data and Communication Flow

Job data is sent from the workflow workstation, which is connected to the *ThermoFlex* Controller software. Figure 3 shows the data and communication flow between the workflow workstation and the platesetter.

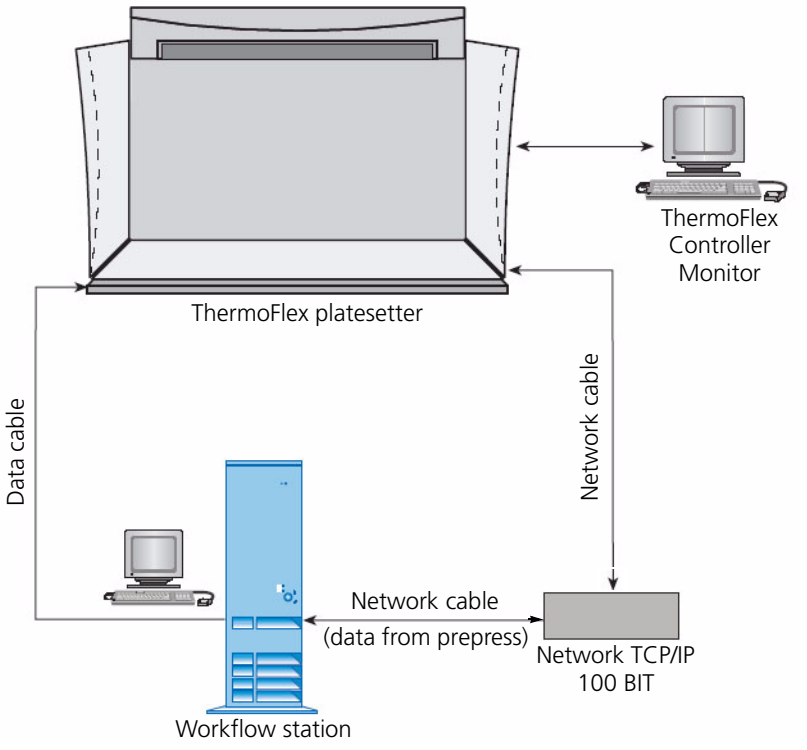


Figure 3: Communication and data flow between platesetter and workflow workstation

Turning the Platesetter On and Off

To turn on the ThermoFlex Narrow Hybrid platesetter:

1. Set the main circuit breaker to 1 (on). See Figure 1 on page 3.
2. On the front panel of the platesetter, press the two on/off buttons so that they are both lit. See Figure 1 on page 3.
3. On the *ThermoFlex* Controller monitor, press the on/off button.
4. Wait until the *Microsoft Windows* operating system appears. On the *Windows* desktop, double-click the **ThermoFlex** icon.
5. Turn on the workflow workstation.

To turn off the ThermoFlex Narrow Hybrid platesetter:

1. In the *ThermoFlex* Controller software, click **Routine Functions**.
2. From the **Routine Functions** menu, select **Shut Down**.
3. On the *Windows* desktop, from the **Start** menu, select **Shut Down**.
4. When the message `It is safe to turn off your computer` appears, go to the platesetter and press the on/off push button on the platesetter's front panel.

2

ThermoFlex Controller User Interface

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Overview

The *ThermoFlex* Controller software is your interface with the *ThermoFlex* Narrow Hybrid platesetter. The *ThermoFlex* Controller software controls the platesetter operation. *ThermoFlex* Controller is constantly updated with the platesetter status, and provides information about the platesetter.

The *ThermoFlex* Controller computer is located inside the platesetter. The monitor and keyboard sit on a nearby table, as shown in Figure 2 on page 5.

The job data is sent from the workflow workstation that is connected to the *ThermoFlex* Controller computer (see Figure 2 on page 5).

User Interface

The *ThermoFlex* Controller software's main window, shown in Figure 4 on page 11, is your basic working area. The following features in the software interface design make it easy to use, even if you have minimal computer knowledge:

- Color-coded indicators show the status of the platesetter.
- The color-coded indicators are large enough that you can see them from a distance. You can see alert signals even when you are working away from the workstation.
- The *ThermoFlex* Controller workspace is divided into functional areas, as shown in Figure 4 on page 11.
- If your configuration includes internal *TIFF FE* workflow (*TIFF FE* installed on the *ThermoFlex* platesetter's E-box), the *ThermoFlex* Controller software's main window shares the workspace with the *TIFF FE* application, as show in Figure 5 on page 12.

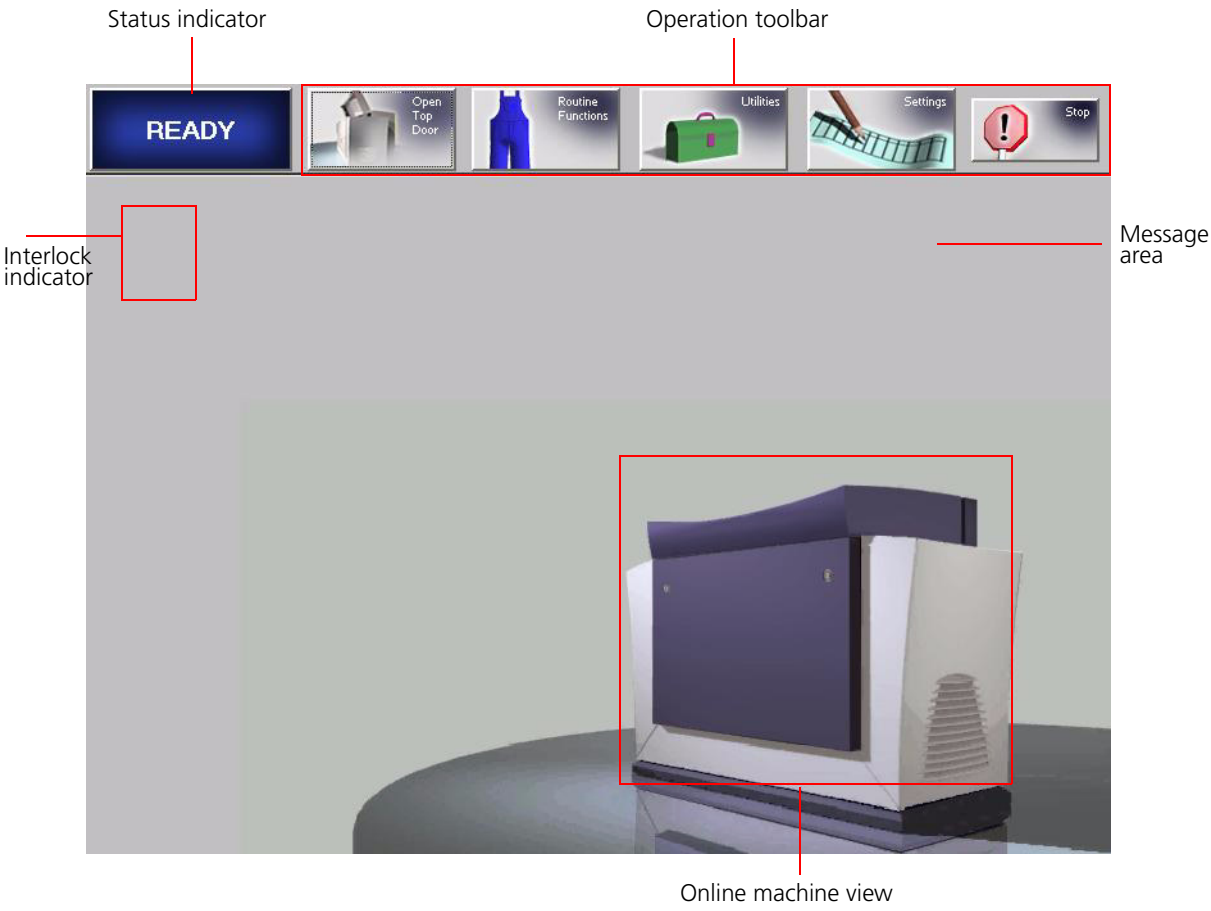


Figure 4: ThermoFlex Controller main window

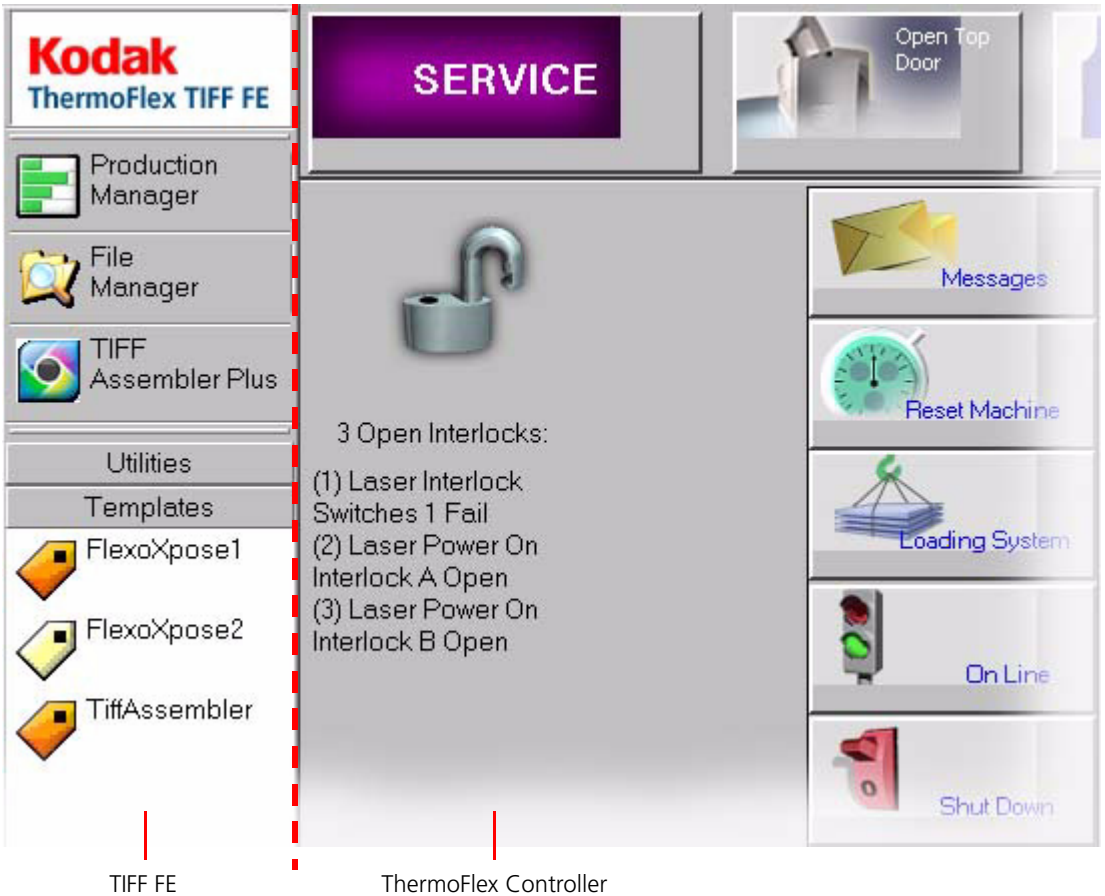


Figure 5: TIFF FE and ThermoFlex Controller for configurations with internal TIFF FE workflow

Status Indicator

The status indicator shows the platesetter's status. Its large, color-coded design makes it easy to see when you are performing tasks away from the workstation.



- **START UP** (green): The platesetter is starting up. All the components of the machine move to their home position.



- **OFF-LINE** (gray): The platesetter is ready for operation, but you cannot expose plates or run a calibration test. After the platesetter starts up or stops, it automatically goes off-line. When you are ready to work, from the **Routine Functions** menu, click the **On-Line** button. The status changes to **READY**.



- **READY** (blue): The platesetter is ready for operation. You can load and expose a plate.



- **WORKING** (green): The platesetter is exposing the current job. When the platesetter is in Working stage, a status bar shows the progress of the exposure, and indicates the time remaining until the task is completed.



- **ATTENTION** (red): The platesetter has stopped working and requires your intervention, or has encountered a problem that requires servicing. A message appears in the message area. Normal operation resumes only after the problem is solved.



- **SERVICE** (purple): A door is open or a panel is removed. The Interlock indicator appears on the main window. If a door is open, the online platesetter view shows the door. (See Figure 6 on page 14.)



For details on safety interlocks, see the *ThermoFlex* Narrow Safety Precautions for User.



Figure 6: Online platesetter view in Service status

Operation Toolbar

The operation toolbar is on the right of the Status indicator. Through the operation toolbar, you can access all the operations that you perform on the platesetter. The operation toolbar includes the **Routine Functions**, **Utilities,** and **Settings** buttons which open menus, and the **Open Top Door** and **Stop** buttons.



Figure 7: Operation toolbar

Open Top Door Button



Opening the top door is the most commonly performed operation. For example, you need to open this door to load and unload a plate. For information on loading and unloading a plate, see “Loading/Unloading Flexo Plates” on page 30.

To open the top door of the platesetter:

1. On the operation toolbar, click **Open Top Door**.

   The door lock is released, and the lock stays open for 30 seconds.

2. During the 30 seconds, press the door downward.

   The door opens slightly.

3. Lift the door to open it completely.

When the top door is open, the safety interlocks are activated. As a result, platesetter systems such as the drum motor and laser system do not operate. The platesetter is in service mode (status indicator is purple) and the Interlock indicator appears, showing the name of the open interlock.

Note: You can also open the door by clicking the top door on the online platesetter view.

Routine Functions Menu



To open the **Routine Functions** menu, click **Routine Functions**.

Routine Functions Menu Item	Description
	**Messages** To open the Message dialog box, click **Messages**. The Message dialog box displays all the messages that describe problems that have occurred during the current run. Whenever the software records a problem, the dialog box automatically opens and highlights the current message. **Note:** To view the entire message, double-click the vertical line in **Description** heading or manually resize the column.  The Message dialog box has four buttons: • Up arrow: Scrolls to the next message • Down arrow: Scrolls to the previous messages • **Reset** : Resets the platesetter *after* the problem that the message described is resolved (see “Reset Machine”, next) • **Help**: Starts the software's help system.

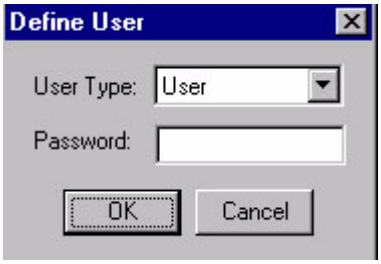
Routine Functions Menu Item	Description
	**Reset Machine** To reset the platesetter, click **Reset Machine**. For example, when a problem that caused the platesetter to stop has been solved, click **Reset**. The system prompts you to confirm the reset. The status switches to **Ready**, **Off-line**, or **Working**, depending on the status of the platesetter before it was reset. **Note:** On the **Routine Functions** menu, **Reset Machine** performs the same action as the **Reset** button in the Message dialog box.
	**Loading System** To open the Loading System dialog box, click **Loading System**. The Loading System dialog box enables you to activate the load and unload buttons.
	**On-line** When the **Status** indicator is **Off-line**, you cannot expose plates. To expose plates, click **On Line** and wait until the status of the platesetter switches to **Ready**.
	**Shut Down** To shut down the machine, click **Shut Down**. See “Turning the Platesetter On and Off” on page 7.

Utilities Menu



To open the **Utilities** menu. click **Utilities**.

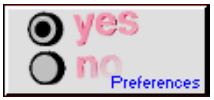
Utilities Menu Item	Description
	**Expose Params** Contains a list of the machine parameters that are related to exposure. You can open this window anytime before or during exposure.
	**Log Files** Consists of a list of the machine's tasks, a message log for service usage, and the queue of jobs to be exposed (data that was sent from the workstation).
	**Machine Info** Shows the *ThermoFlex* Controller software version
	**Hardware** Lists the machine systems and parts
	**Setup Tables** Lists the laser intensity and drum speed values for each plate. You can change the values. For example, if a plate is underexposed, you can increase laser intensity or drum speed for the resolution value in the expose job.
	**Preventive Maintenance** Prepares the machine for maintenance mode. If image quality is not sufficient, clean the nozzle. To access the nozzle, click the **Preventive Maintenance** button. The machine prepares itself for maintenance. Then open the top door and clean the nozzle. **Note:** When you clean the nozzle for the first time, a service engineer must be present.

Utilities Menu Item	Description
	**Diagnostics** Currently not supported.
	**Users** 1. Click **Users** to open the Define User dialog box. 2. Select user type: **User**, **Service**, or **R&D**. (Select **User**, unless a service engineer instructs you to select one of the other types.) 3. Type your password and click **OK**. 

Settings Menu



To open the **Settings** menu, click **Settings**.

Settings Menu Item	Description
	**Media Definitions** Before you load a plate, you must define the plate's parameters. Click **Media Definitions** to perform the following actions: • Define the type of plates you will use. • Change the plate's parameters. • Delete plate types that you no longer use. For details see "Media Definition" on page 24.
	**Preferences** Click **Preferences** to set the following: • **Units of measure**: To set units of measurement for all measurements, such as plate dimensions and thickness, choose **cm** or **inch**. • **Language**: Only **English** is implemented.

Stop Button



If you need to stop the machine urgently, on the operation toolbar, click **Stop**. The drum and all the machine operations stop immediately, and the plate remains in its current position.

Online Machine View

The online machine view shows a simulation of the condition of the platesetter during operation.

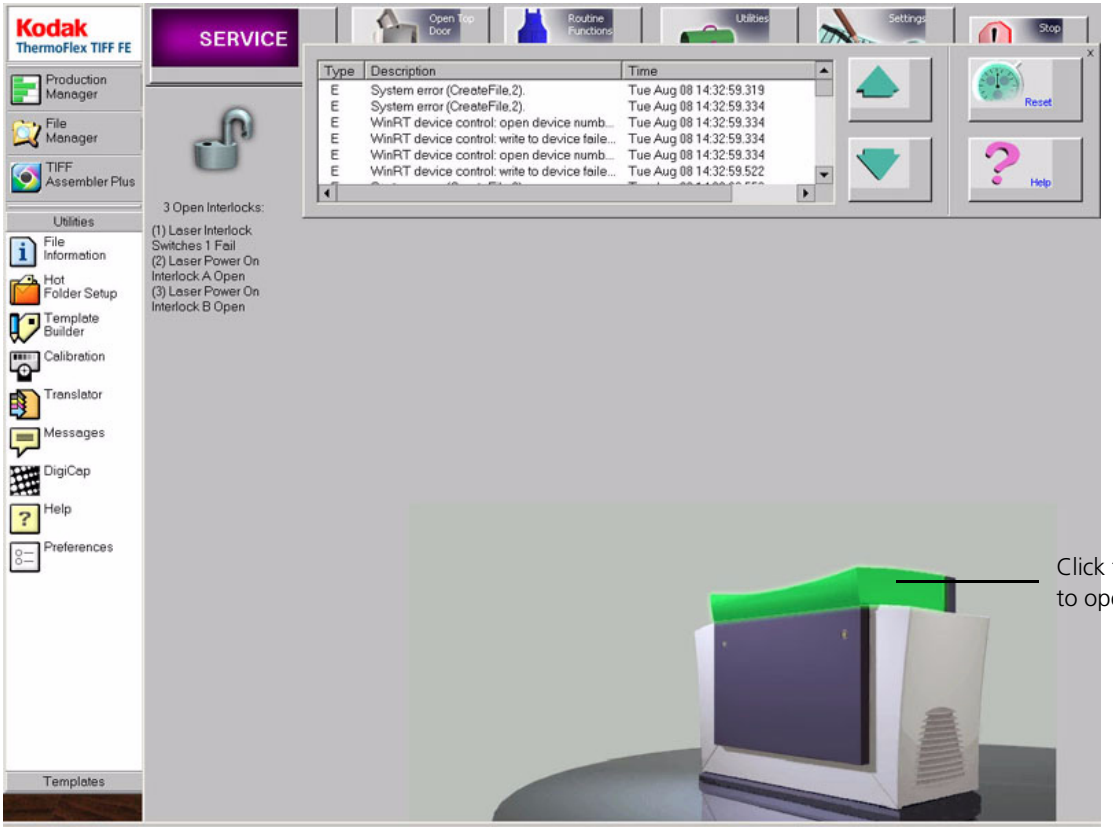


Figure 8: Main screen with Service status, interlock indicator, and open door

Perform interactive operations

To open the front or rear door, on the online machine view, click the relevant door.
(This is the same as using the **Open Top door** and **Open Rear door** buttons from the **Routine Functions** menu.)

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Plate Handling

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Media Definition

Before you load media on the platesetter, you must define the type of media that you will use. Use the **Media Definitions** option to:

- Define the type of media that you will use.
- Modify the parameters of existing media.
- Delete media that you will no longer use.

To access media definitions:



➢ In the operations toolbar, in the **Settings** menu, select **Media Definitions**.

In the **Media List**, you can see the types of media that are currently defined.

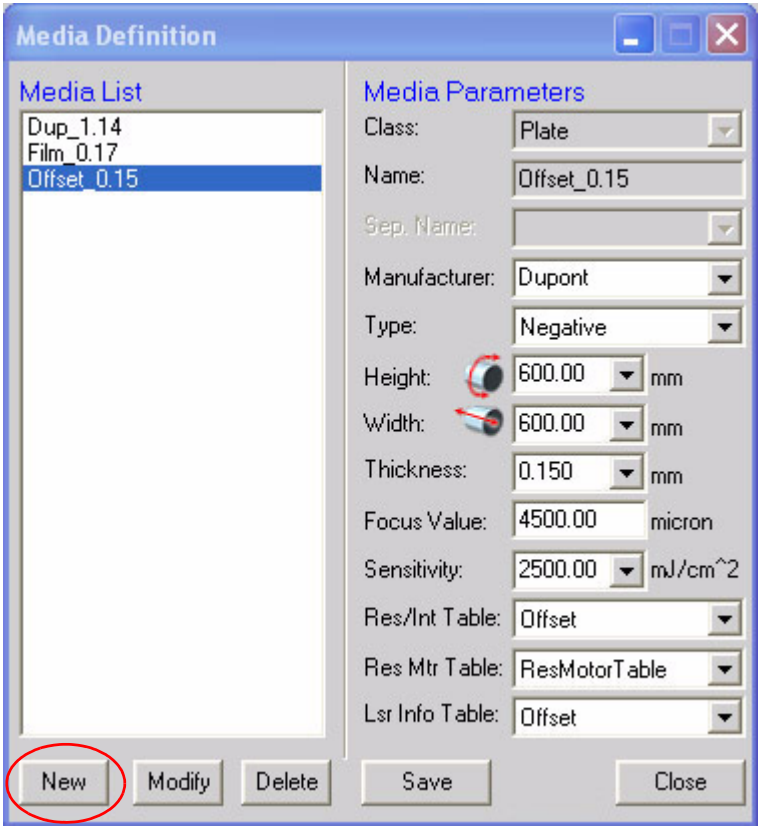


Figure 9: Media Definitions dialog box with sample types of media defined

To define new media:

1. In the Media Definition dialog box, shown on Figure 9 on page 24, click **New** to clear the media definitions boxes.

2. In the **Name** box, type the media name.



Important: It is recommended that you include the media manufacturer's name and the plate thickness in the name that you assign to the media. This will help you to select the correct plate set in the Plate Expose dialog box on the workflow workstation, before you expose the media.
For example, **Dup_0.045** or **Dup_0.067** indicates a Dupont 1.14-mm (0.045 in.) or Dupont 1.7-mm (0.067 in.) flexo plate, respectively.

3. For each of the following parameters, select or type the relevant information:

Table 1: Media Parameters

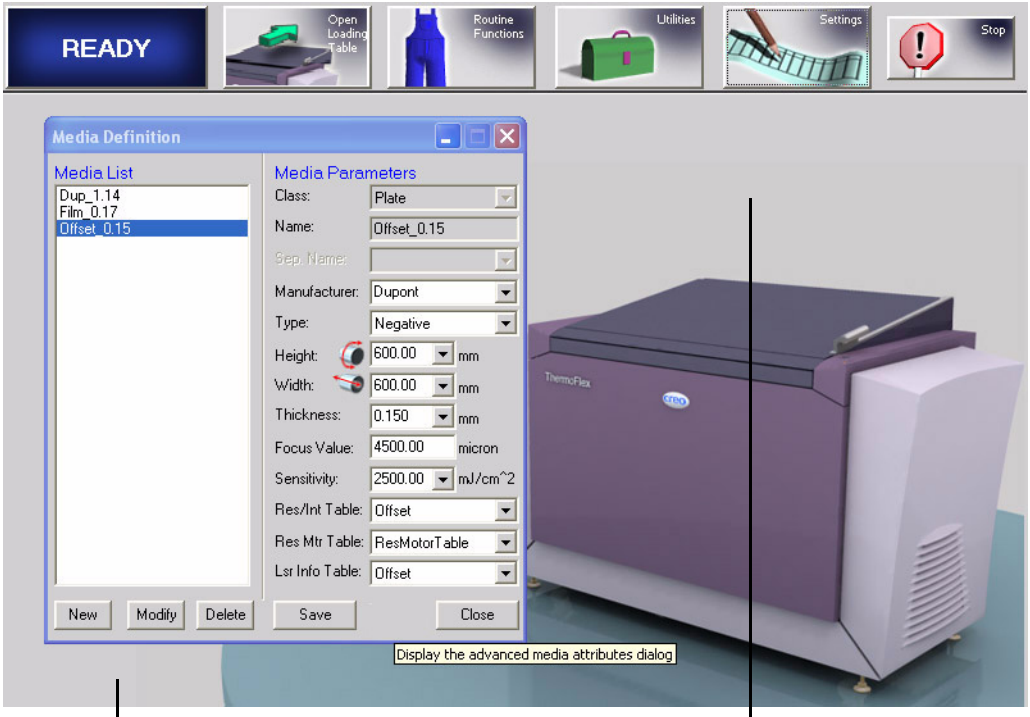
Parameter	Setting
Class	Plate
Manufacturer	The name of the media manufacturer
Type	Negative (The majority of media used in this platesetter are negative media, that is, a positive exposure is performed.)
Height	The media height in millimeters The maximum *ThermoFlex* Narrow media height is 762 mm (30 in.).
Width	The media width in milimeters The maximum *ThermoFlex* Narrow media width is 762 mm (30 in.).
Thickness	The media thickness You must verify the media thickness with a micrometer. The range should be 0.1–2.5 mm, 0.7–3.2 mm, or 1.14–3.94 mm. **Note:** For platesetters with a wide-focus assembly, the plate thickness can range from 0.7 mm to 3.94 mm.

Parameter	Setting
Sensitivity	2500 is the default for all models. This value is important for the adjustment of the optic system.
Res/Int Table	Select the relevant resolution intensity table according to your type of media.
Res Mtr Table	Select the relevant resolution motor table according to your type of media.
Lsr Info Table	Select the relevant laser information table according to your type of media.

After you set the media parameters, you must set the advanced media properties, described following.

4. Access the Media Advanced Properties dialog box:

   a. Click the background of the *ThermoFlex* Controller software's main window, and press <CTRL>+<U>.



Click here or here and press <CTRL>+<U>

Figure 10: Accessing the Media Advanced Properties dialog box

   b. Click the **Adv.** (advanced) button.

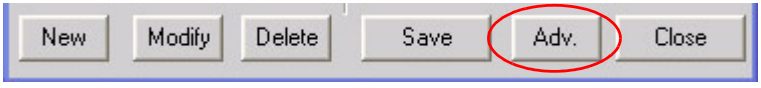


Figure 11: Adv. (advanced) button

5. In the Media Advanced Properties dialog box, set the relevant settings for your media (as described in the table on page 29).

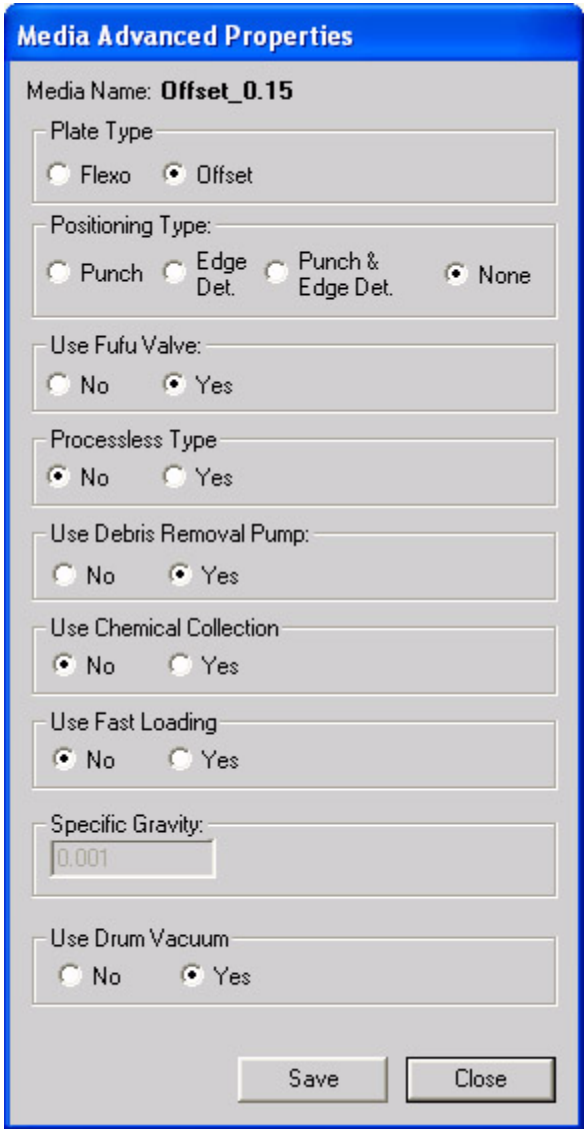


Figure 12: Media Advanced Properties dialog box, showing settings for an Offset plate

Table 2: Media Advanced Properties Parameter Settings

Parameter	Setting	
Plate Type	Flexo	Offset
Positioning Type	None	None
Use Fufu Value	None	Per media type
Processless Type	None	Per media type
Use Debris Removal Pump	Yes	Yes
Use Chemical Collection	Per UDRC type: BP = no, BF = yes	
Use Fast Loading	No	No
Use Drum Vacuum	Yes[a]	Yes

a. For steel-backed flexo plates, select **No**.

6. To save the new media that you defined, click **Save.** The name of the new media appears in the **Media List**.

To modify the parameters of existing media:

1. In the **Media List**, select the media whose parameters you want to modify. The parameters of the media that you selected appear under **Media Parameters.**



Note: You can modify all media parameters, except Name and Focus Value. (The **Name** and **Focus Value** are gray). To change the media name, you must first **Delete** the media, described following, and then click **New** to configure it again.

2. Define the media parameters as explained in "To define new media:" on page 25.
3. To save the modified parameters, click **Save.**

To delete existing media:

- In the **Media List**, select the requested plate and click **Delete.**

Loading/Unloading Flexo Plates

Loading a Flexo Plate

After you define a job on the workflow workstation, the workstation sends a message to *ThermoFlex* Controller requesting that you load an appropriate plate in the platesetter. The message on the Main window in *ThermoFlex* Controller specifies the required plate thickness and size.

To load a plate:



1. To open the top door of the platesetter, on the operation toolbar, click the **Open Top Door** button and lift the top door. For details, see "Open Top Door Button" on page 15.
2. Carefully remove the top protective layer of the plate that you want to load. Note that after the top layer is removed, the plate becomes flexible.



Note: Make sure not to touch the top side of the plate after the protective layer is removed.

3. Locate the horizontal line (scribeline) marked on the drum.

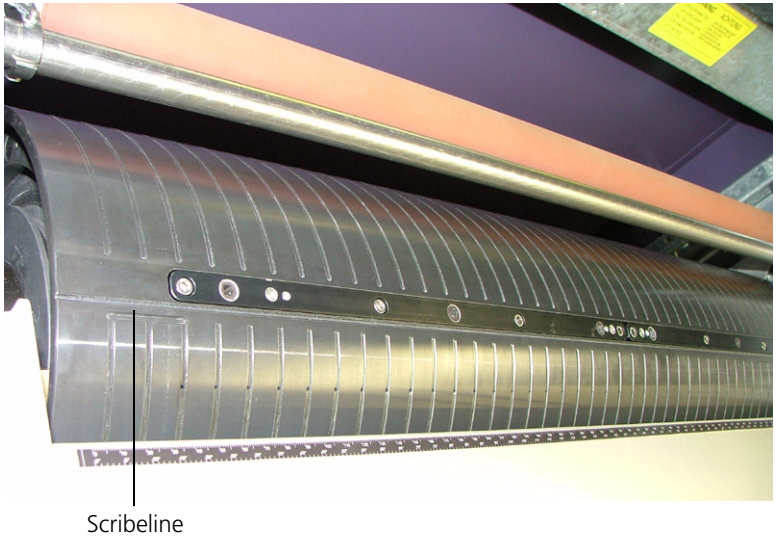


Figure 13: Scribeline marked on drum (starting point of exposed area)

4. Starting at the left corner of the plate, align the leading edge of the plate with the scribeline on the drum.

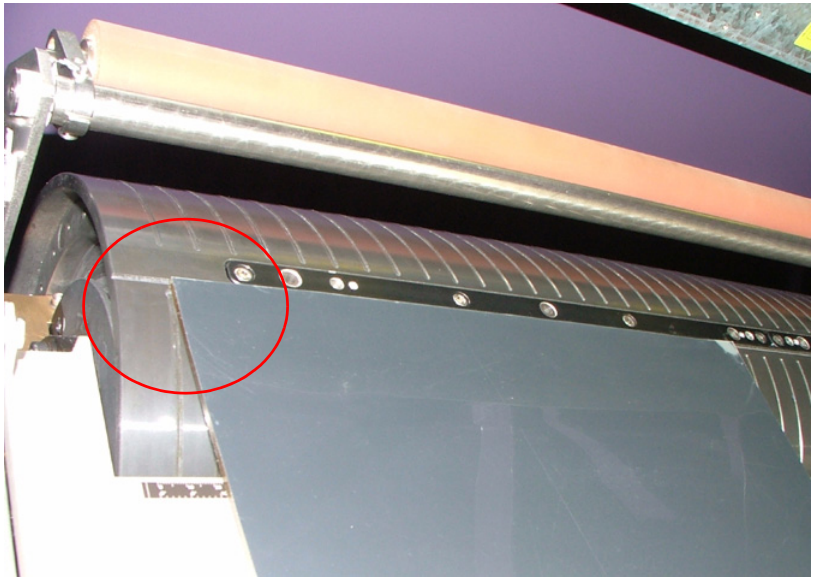


Figure 14: Loading plate on drum, starting at left side

5. To turn on the drum vacuum system, press the foot pedal. The drum vacuum helps to secure the plate on the drum.

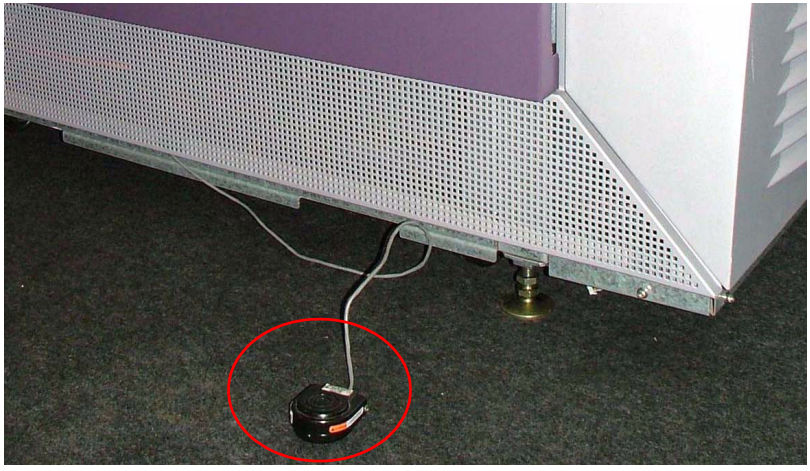


Figure 15: Foot pedal for switching on drum vacuum system

6. Tape the leading edge of the plate to the drum. The tape should cover a 5-mm (2 in.) strip on the leading edge of the plate, and a 5-mm (2 in.) strip along the drum. Make sure that the tape is straight and smooth.

Note: Use approved tapes that adhere to the *ThermoFlex* specifications. If you have any doubts about the type of tape, ask your service representative.

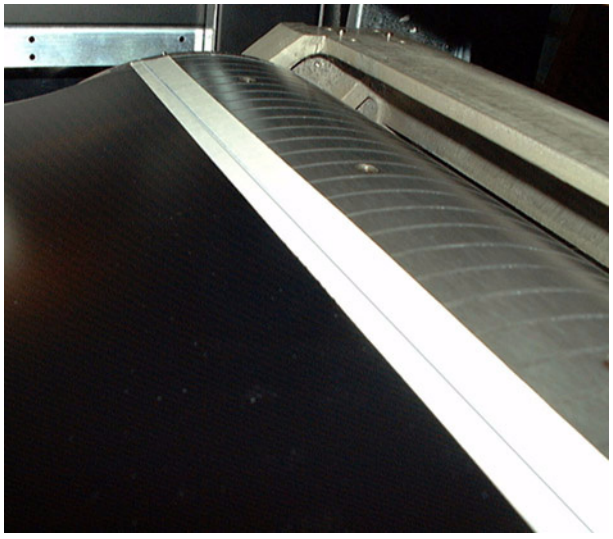


Figure 16: Top edge of plate to drum taped to drum

Note: When you define the image offset in the workflow workstation, you must take into account the tape width.

7. Slowly rotate the drum until you can tape the trailing edge of the plate to the drum. There is no need to tape the plate sides.

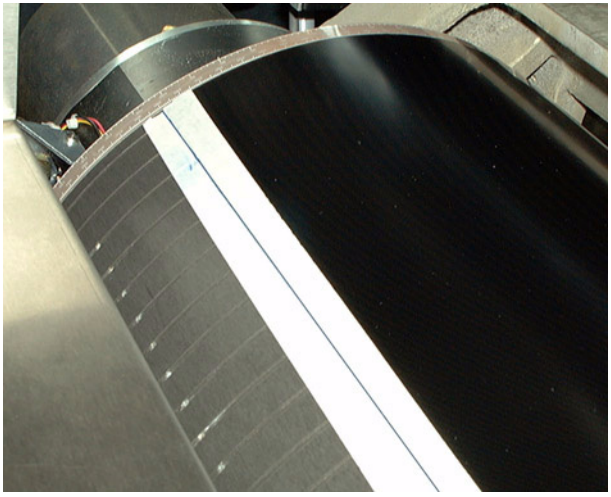


Figure 17: Trailing edge of plate taped to drum

8. After the leading and trailing plate edges are taped to the drum, from the side of the platesetter, look at the plate and make sure that the plate surface is smooth.
9. Close the top door of the platesetter.



Note: The foot pedal cannot be activated *after* the top door is closed, so you cannot switch off the debris removal system using the foot pedal.

10. In *ThermoFlex* Controller, in the Loading System dialog box, click **OK** to confirm that the requested plate was loaded.

    The online platesetter status shows **Working** (green) and the expose job begins.

Unloading a Flexo Plate

When the expose job is completed, a message appears on the *ThermoFlex* Controller main window and on the workflow workstation. The message requests that you unload the plate.

To unload a plate:

1. To open the top door of the platesetter, on the operation toolbar, click the **Open Top Door** button and lift the top door.
2. Manually rotate the drum to the trailing edge of the plate.
3. Peel the tape off the plate and the drum.
4. Manually rotate the drum toward you and slide the plate onto the loading tray.



CAUTION: Be careful not to touch the emulsion side of the plate while unloading it.

Loading/Unloading Magnetic Plates

This section describes how to load and unload plates on the *ThermoFlex* Narrow Hybrid platesetter with the magnetic drum option.

The magnetic drum option enables you to image steel-back plates on a *ThermoFlex* Narrow Hybrid platesetter.

Loading a Plate on ThermoFlex Narrow With Magnetic Drum

To load a magnetic plate:

1. Manually rotate the drum to the scribeline.

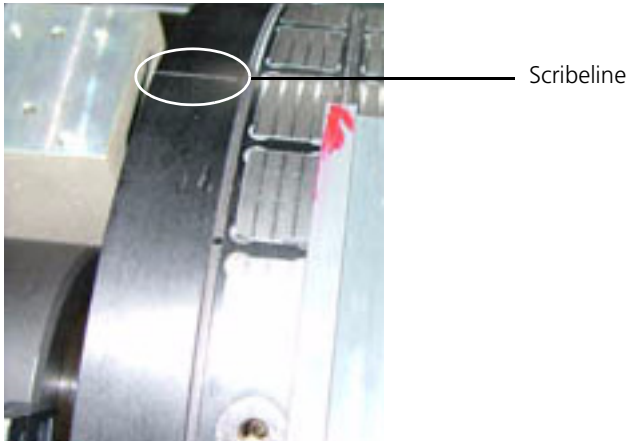


Figure 18: Drum rotated to scribeline

2. Lock the brakes located on the right side of the drum.

Note: When the brakes are locked, you cannot rotate the drum.

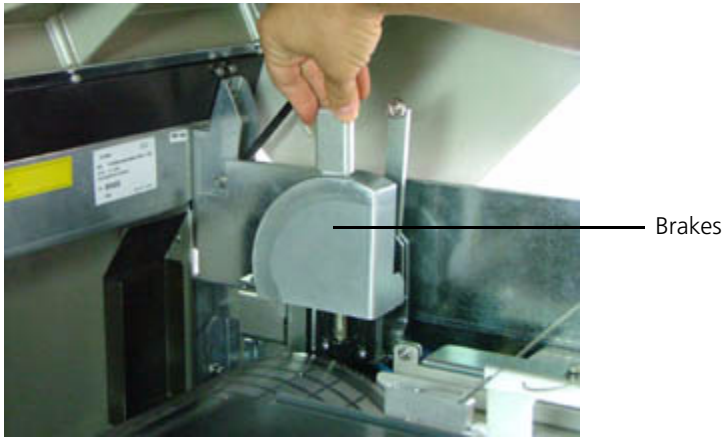


Figure 19: Locking brakes

3. Place the plate on the left side of the drum, aligned with the scribeline.

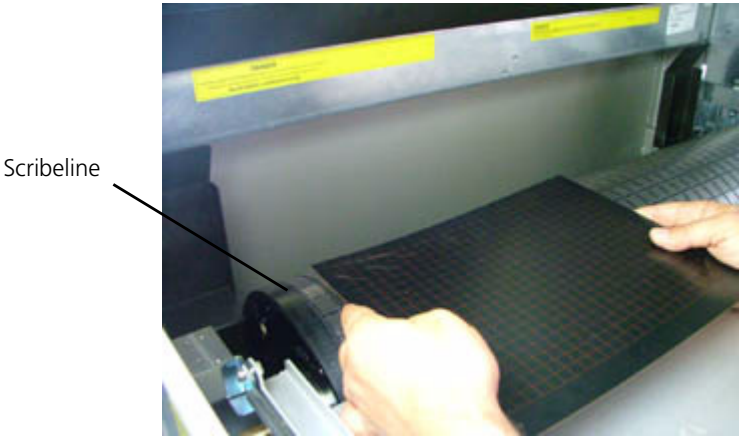


Figure 20: Placing plate on drum

The magnetic force of the drum makes the plate adhere to the drum's surface.

Note: You can place a second plate on the upper-right side of the loading tray. Make sure the round punch is on the left side and the oval punch is on the right side.

4. Release the brakes.



Figure 21: Releasing brakes.

Note: If you do not release the brakes, they release automatically when you close the top door.

5. Manually rotate the drum so that the entire plate adheres to the drum.



Figure 22: Plate adheres to drum

Note: You can load more plates, depending on the size of the plates.

Unloading a Plate on ThermoFlex Narrow With Magnetic Drum

To unload a magnetic plate:

1. To open the top door of the platesetter, on the operation toolbar, click the **Open Top Door** button and lift the top door.
2. Rotate the drum to the trailing edge of the plate.
3. Use the unload scraper to loosen the plate.



Figure 23: Removing plate with unload scraper

4. Rotate the drum toward you and slide the plate onto the loading tray.



Figure 24: Unloading plate

CAUTION:
Be careful not to touch the emulsion side of the plate while unloading.
Be careful not to bend the plate while unloading.

Loading/Unloading Offset Plates

This section describes how to load and unload plates on the *ThermoFlex* Narrow Hybrid platesetter with Offset option.

The *ThermoFlex* Narrow Hybrid platesetter with Offset option enables you to image both flexo and offset plates. The offset plates are pre-punched. You load the offset plates manually onto the drum with the help of registration pins.

After the plate is loaded, it is secured with tape on the leading and trailing edges. No clamping is required. The pins are then returned to the pin holder, which is connected to the mechanical interlock system.

The offset option enables you to image one or two plates simultaneously.

Loading an Offset Plate

There are two ways in which you can begin the plate loading process:

- In *ThermoFlex* Controller, ask to load a plate and then send a job from the workflow workstation.
- Send a job request via the workflow workstation.

In both of these cases, follow the procedure described next for loading a plate.

To load an offset plate:



1. In *ThermoFlex* Controller, on the operation toolbar, click the **Open Top Door** button and lift the top door. For details see “Open Top Door Button” on page 15.

   The laser head moves to home position and the top door opens.

2. Lift the loading tray and verify that the laser head is at home position, as shown in Figure 26.

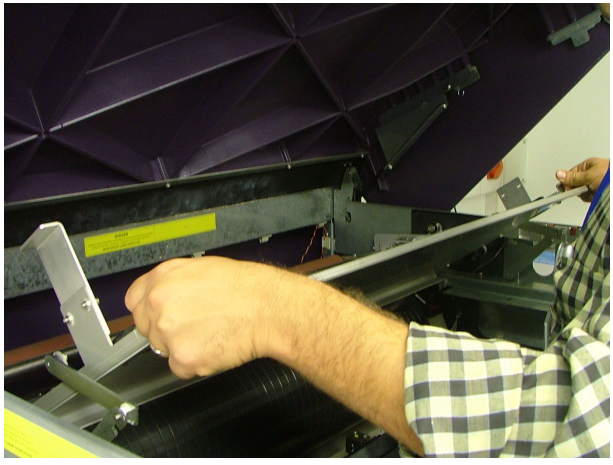


Figure 25: Lifting loading tray

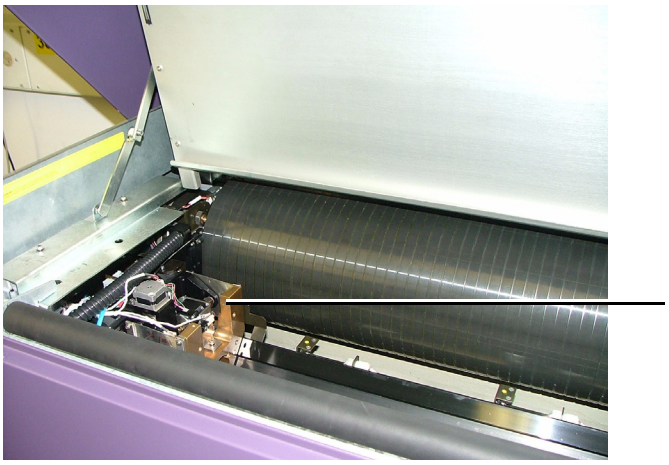


Figure 26: Laser head at home position

3. Lower the loading tray.

4. Verify that the plate roller is not touching the drum and that it is in the up position. If the plate roller is not in the up position, push the roller lever down.

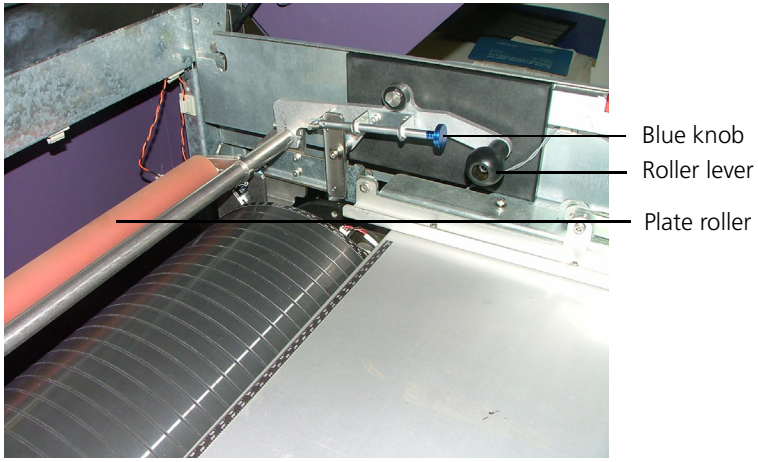


Figure 27: Plate roller in up position

5. Manually rotate the drum until you can see the drum holes on the registration bar.

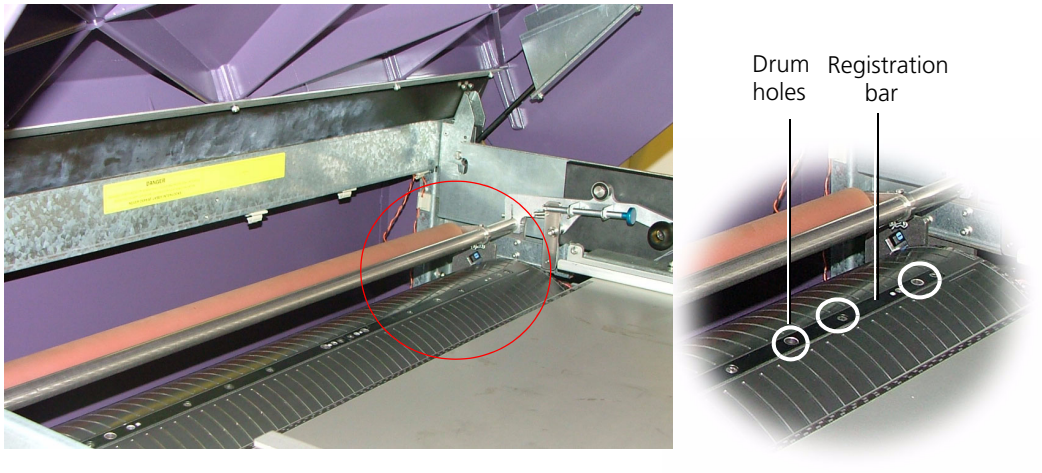


Figure 28: Drum holes on registration bar

6. Place a plate on the loading tray with the punch holes on the plate aligned with the punch holes on the drum.

Note: The punch holes on the drum are customized for each customer.

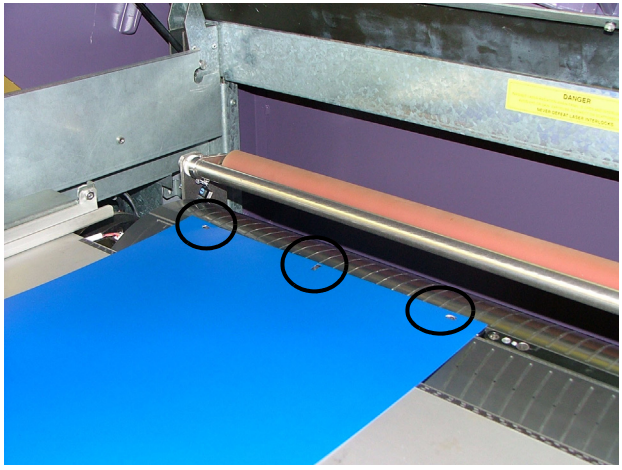


Figure 29: Plate on drum with punch holes aligned

7. From the pin holder on the right side, remove two or three registration pins.

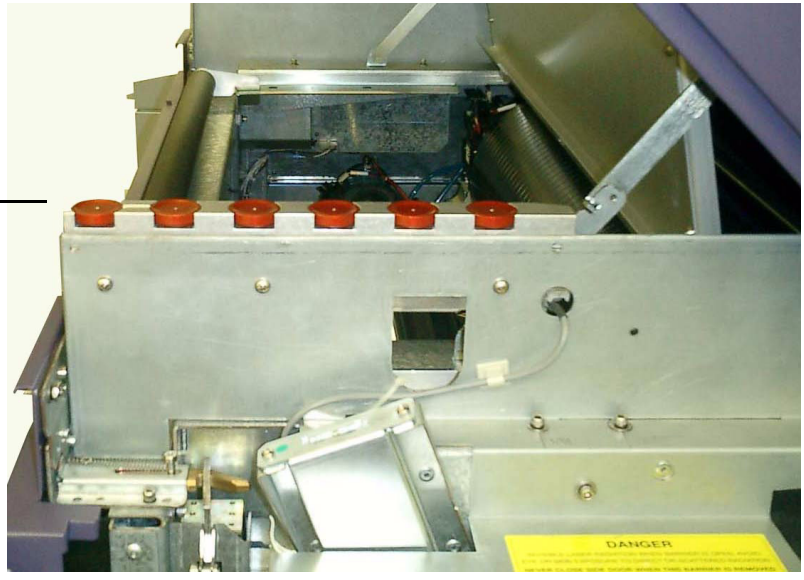


Figure 30: Pin holder

8. Insert the registration pins into the punch holes.

Note: If you are using three pins, first insert the two pins on the outer edges of the plate, and then insert the middle pin last.

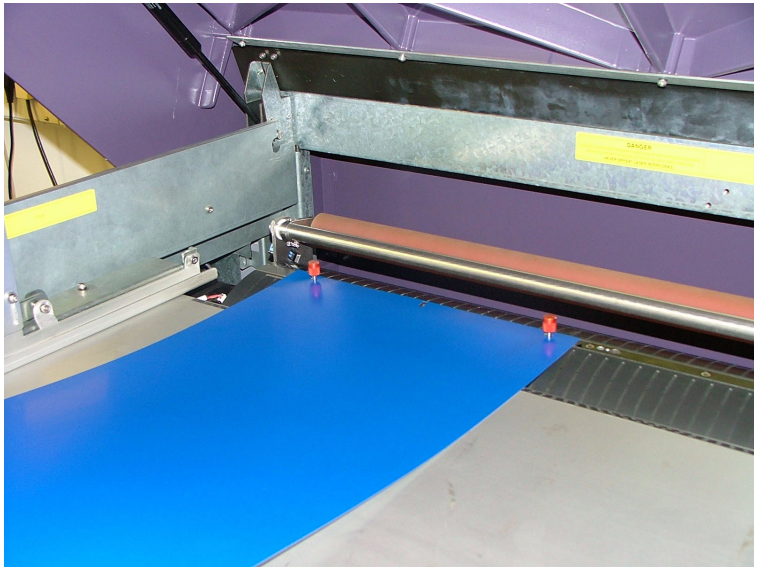


Figure 31: Registration pins inserted in punch holes

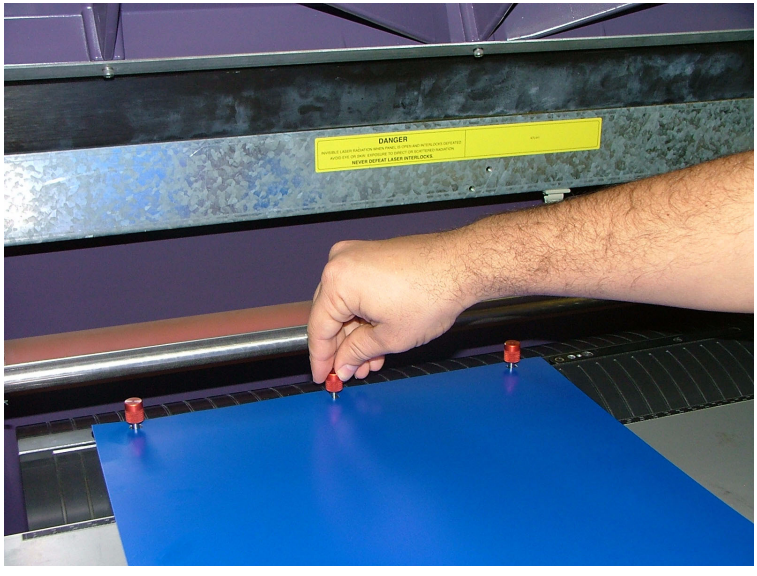


Figure 32: Inserting middle pin

9. Use aluminum masking tape (*3M* Aluminum Foil Tape 425, 1.5 in. width, 60 yd. length) to tape the leading edge of the plate to the drum. Follow these taping guidelines:

   - Put pieces of tape between each of the pins.
   - Make sure that the pieces of tape cover the punch holes, but do not cover more than 15 mm (0.6 in.) of the plate.
   - The tape must not touch the registration bar.
   - If you load two plates consecutively, make sure that the tape does not extend over the edge of the plate on the side near the second plate.

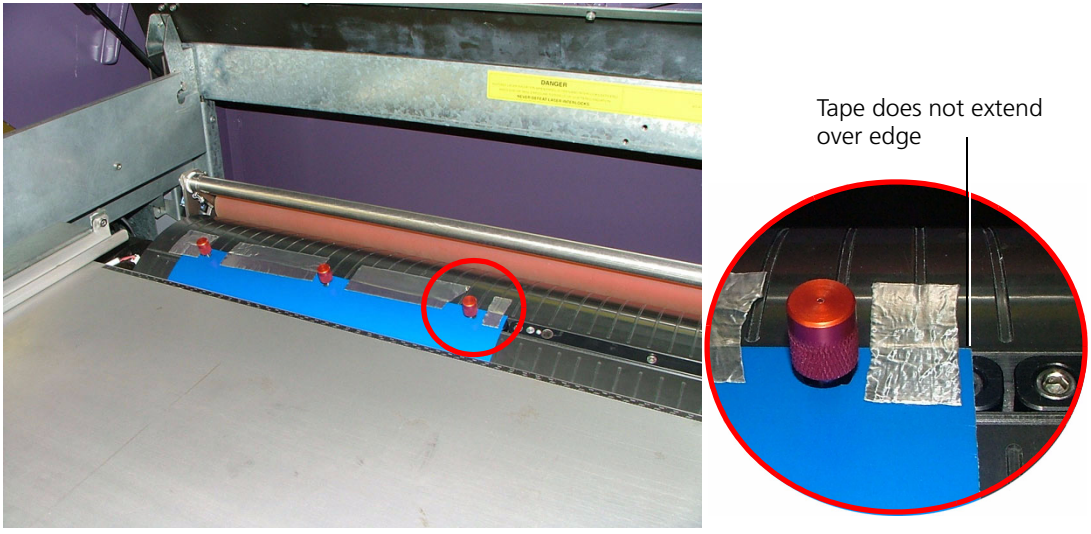


Figure 33: Leading edge of plate taped to drum

10. Manually rotate the drum so that the plates's leading edge and the registration pins move beyond the plate roller.

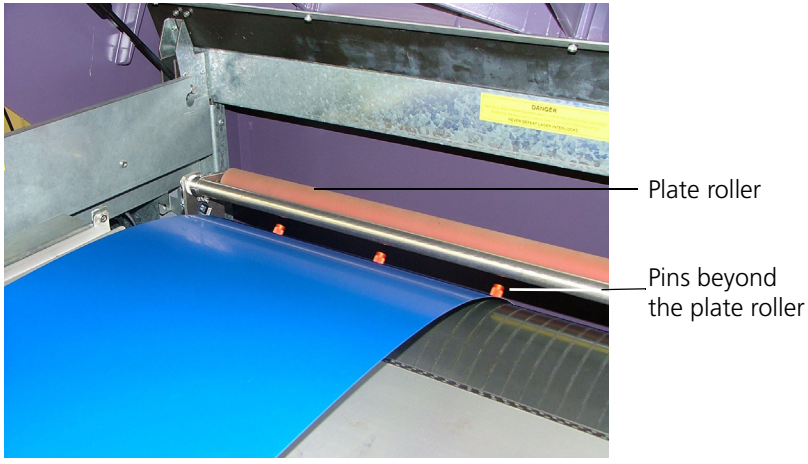


Figure 34: Rotating drum

11. Activate the vacuum by pressing the vacuum pedal.



Figure 35: Activating vacuum

12. To lower the plate roller onto the drum, pull the blue knob and lift the roller lever up.



Figure 36: Lowering plate roller onto drum

13. Manually rotate the drum until you see approximately 5 cm (2 in.) of the trailing edge of the plate.



Figure 37: Rotating drum

14. Use aluminum masking tape to tape the trailing edge of the plate to the drum.

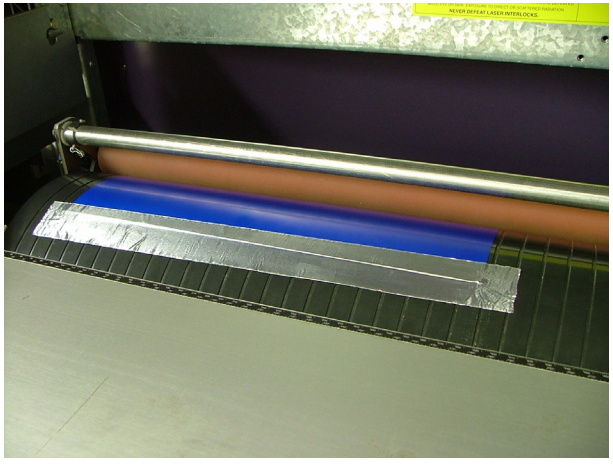


Figure 38: Trailing edge of plate taped to drum

Note: If you load two plates, make sure that the tape does not extend over the edge of the plate on the side that is near the second plate.

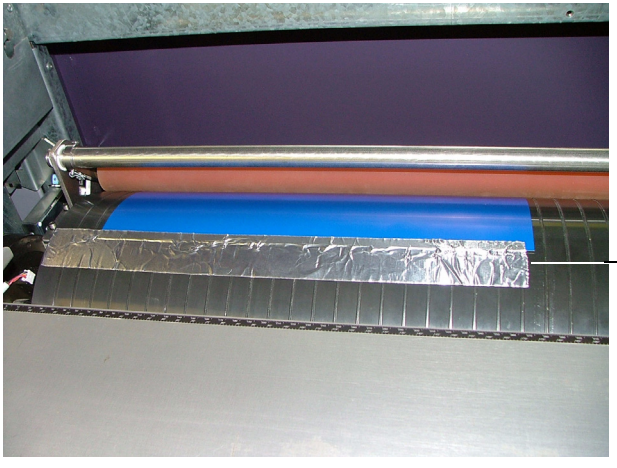


Figure 39: Trailing edge of plate taped to drum when loading two plates

15. Rotate the drum so that you see the leading edge of the plate (see Figure 40).
16. Remove the registration pins from the drum and return them to the pin holder.



Figure 40: Removing registration pins from drum

CAUTION: Failure to return the registration pins to the pin holder after taping the plate to the drum, may cause damage to the laser head and result in mechanical and laser radiation hazards. If any of the six pins are not in the pin holder, the interlock is activated. The motors cannot operate and exposure cannot begin.

Note: If you want to load another plate, skip the remaining steps and go directly to "Loading a Second Offset Plate" on page 51.

17. Use one large piece of aluminum masking tape and cover all the small pieces of tape that you taped on in step 9. Make sure the tape covers the punch holes, but does not cover more than 15 mm (0.6 in.) of the plate. Do not put any tape over the edge of the registration bar.

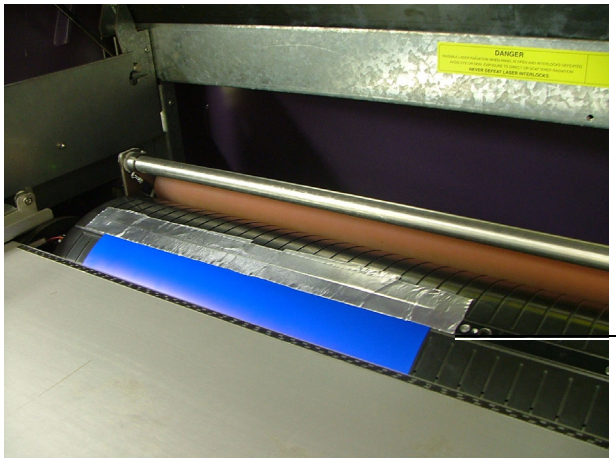


Figure 41: Retaping leading edge of plate

18. Push the roller lever down to lift the plate roller off the drum.



Note: If you do not lift the plate roller, it will automatically be lifted when you lower the top door.

19. Close the top door.
20. Make sure that *ThermoFlex* Controller status is **Ready.**

Loading a Second Offset Plate

To load a second offset plate:

1. Next to the plate that is currently on the drum, place a second plate on the loading tray so that the punch holes on the plate align with the holes on the drum.

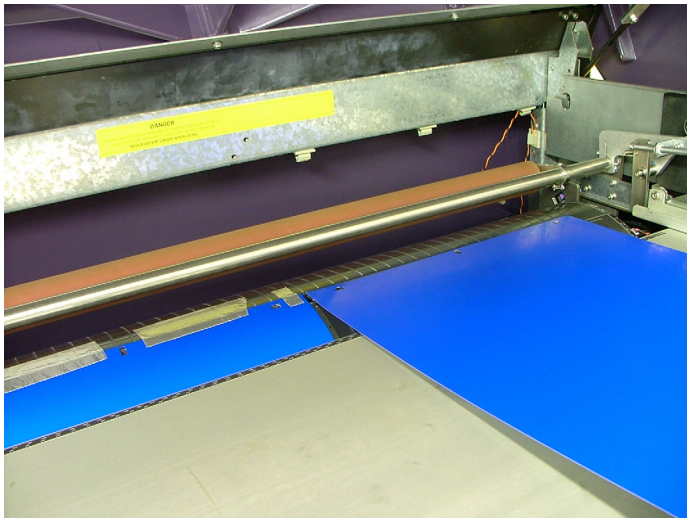


Figure 42: Placing second plate on loading tray

Note: The punch holes on the drum are customized for each customer.

2. Remove two or three registration pins from the pin holder (see Figure 30 on page 43) and insert them in the punch holes.

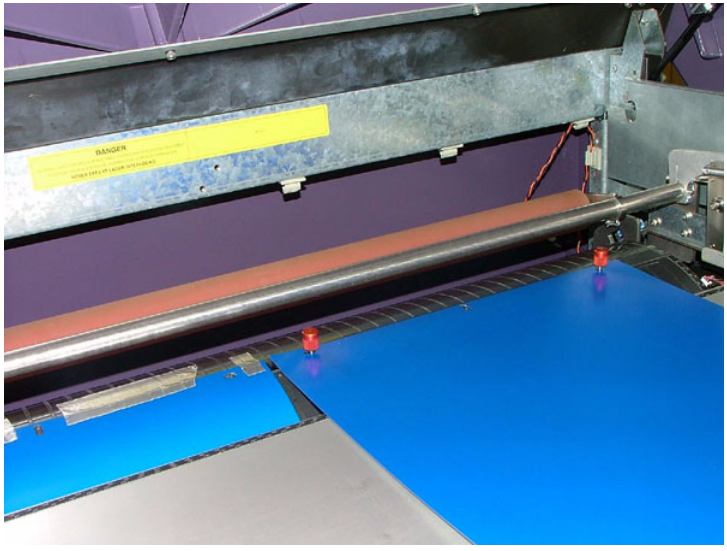


Figure 43: Insert registration pins

Note: If you are using three pins, first insert the two pins on the outer edges of the plate and then insert the middle pin last.

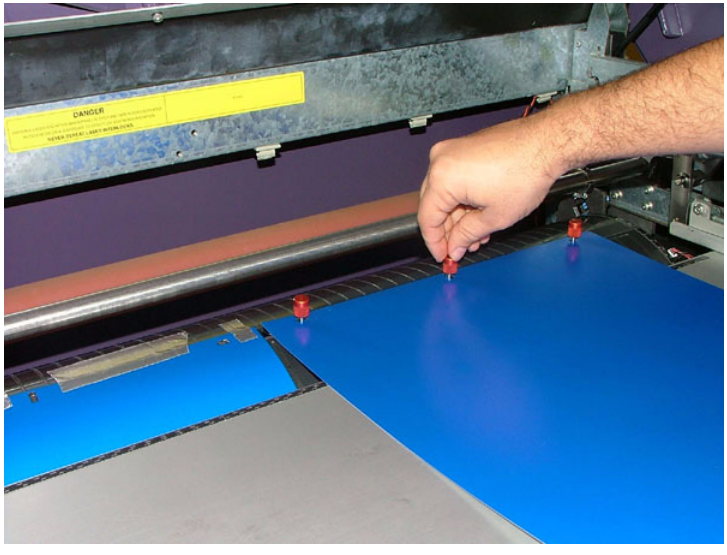


Figure 44: Inserting middle pin

3. Use aluminum masking tape (*3M*® aluminum foil tape 425, 1.5 in. 60 yd.) to tape the leading edge of the plate to the drum. Follow these taping guidelines:

   - Put pieces of tape between each of the pins, and over the edge of the plate that is further away from the first plate.
   - Make sure that the tape does not extend over the edge of the plate on the side near the first plate.
   - Make sure that the pieces of tape cover the punch holes, but do not cover more than 15 mm (0.6 in.) of the plate.
   - The tape must not touch the registration bar.

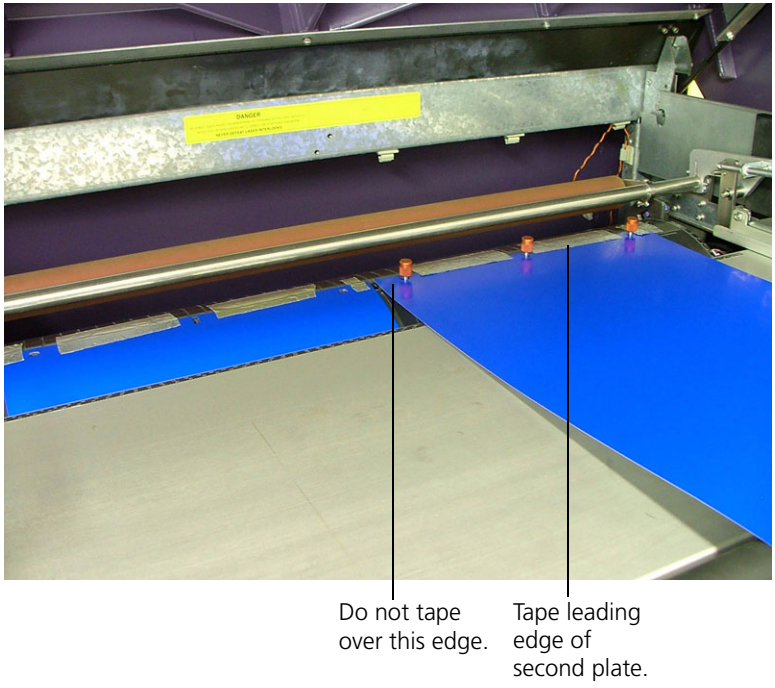


Figure 45: Leading edge of second plate taped to drum

4. Use one large piece of aluminum masking tape and tape across the leading edge of the first plate that you loaded. Make sure that the edge of the tape overlaps the edge of the second plate that you loaded.

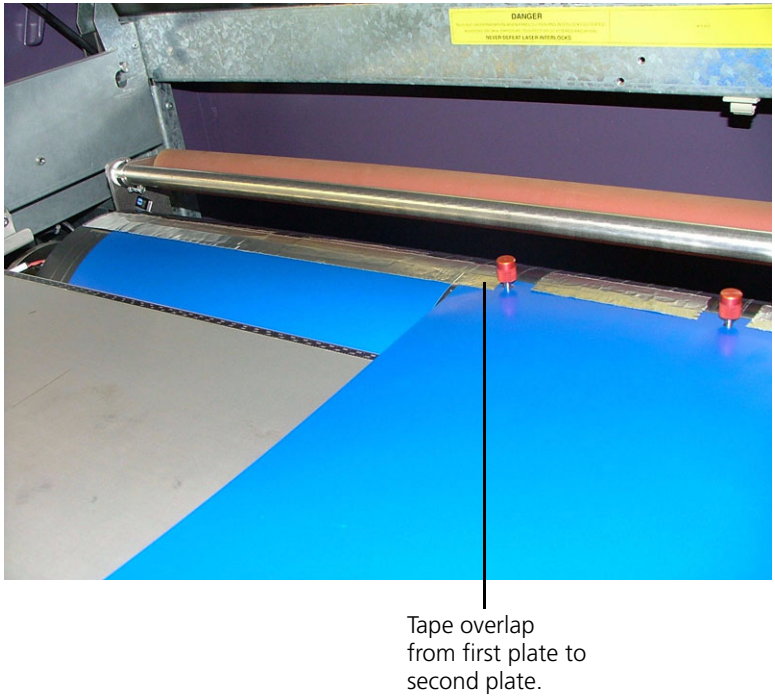


Figure 46: Taping across leading edge of first plate loaded

5. Press down on the tape between the two plates to remove air pockets.

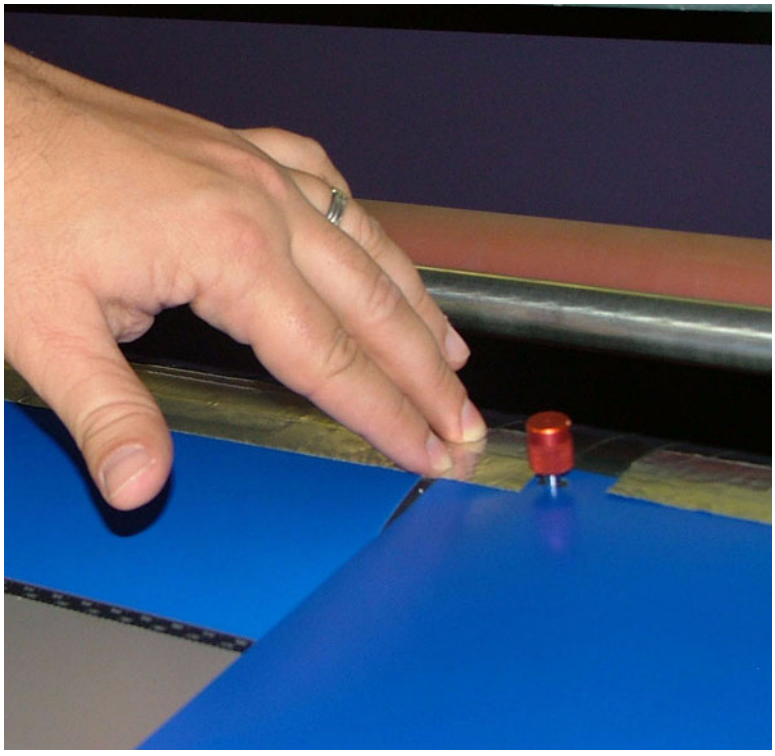


Figure 47: Pressing surface of tape

6. Rotate the drum so that the leading edge of the plate and the registration pins move beyond the plate roller.

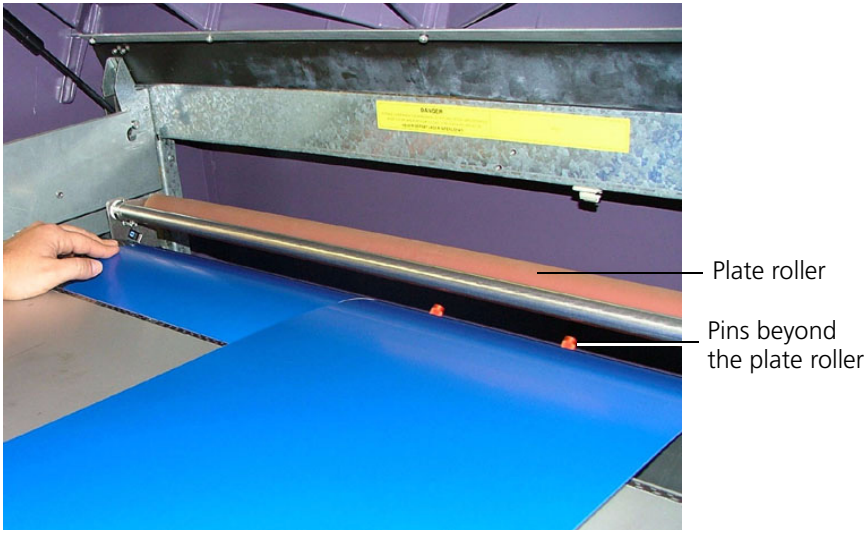


Figure 48: Rotating drum

7. Pull the blue knob and lift the roller lever up to lower the plate roller onto the drum.

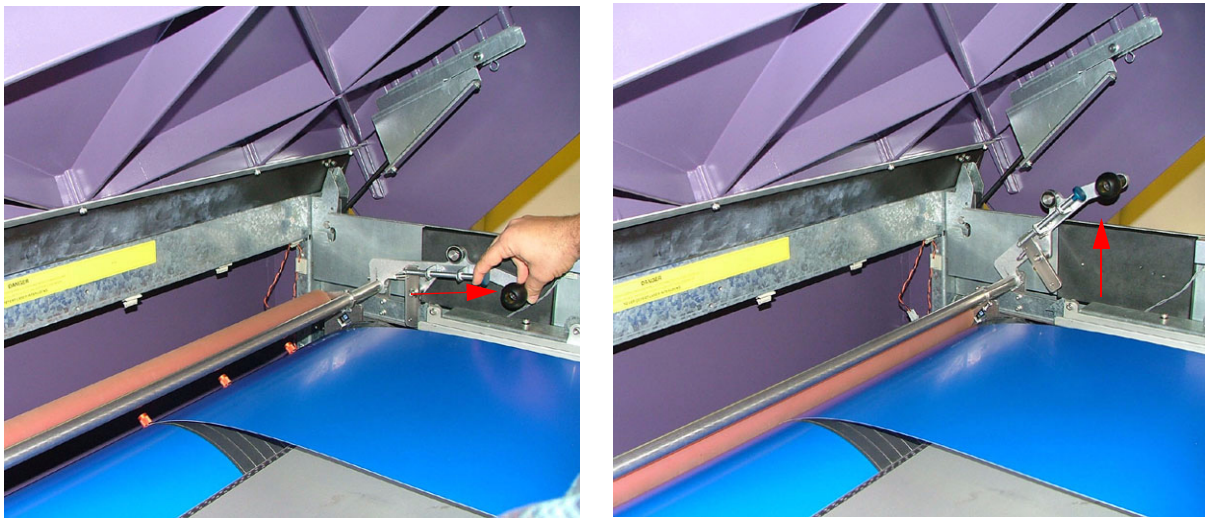


Figure 49: Lowering plate roller onto drum

8. Rotate the drum until you see approximately 5 cm (2 in.) of the trailing edge of the plate.

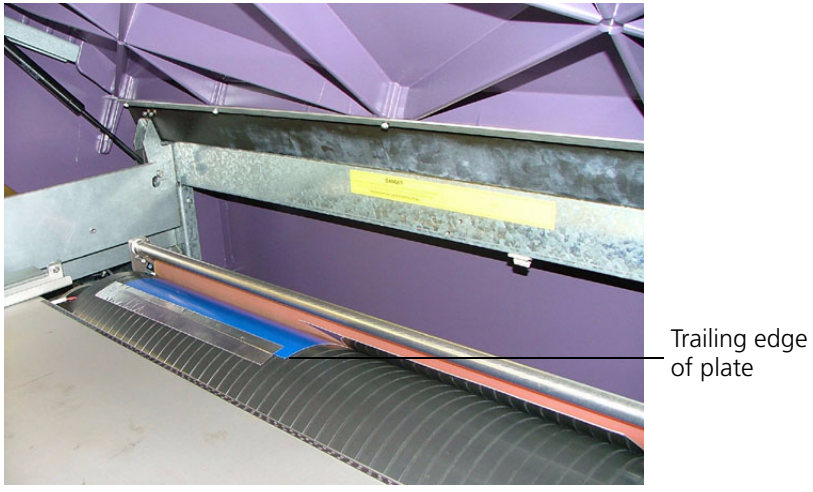


Figure 50: Rotating drum

9. Use aluminum masking tape to tape the trailing edge of the plate to the drum. Make sure that the tape overlaps the corner of the trailing edge of the first plate.

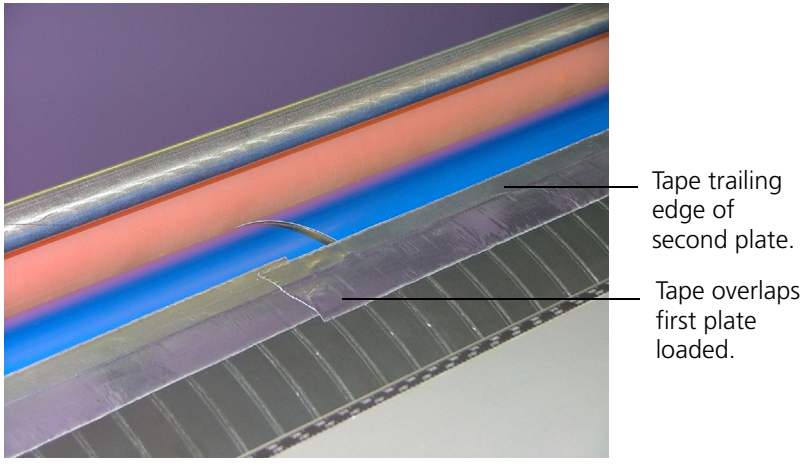


Figure 51: Taping trailing edge of plate to drum

10. Rotate the drum so that you see the leading edge of the plate (see Figure 40 on page 49).

11. Remove the registration pins from the drum and return them to the pin holder (see Figure 30 on page 43.)

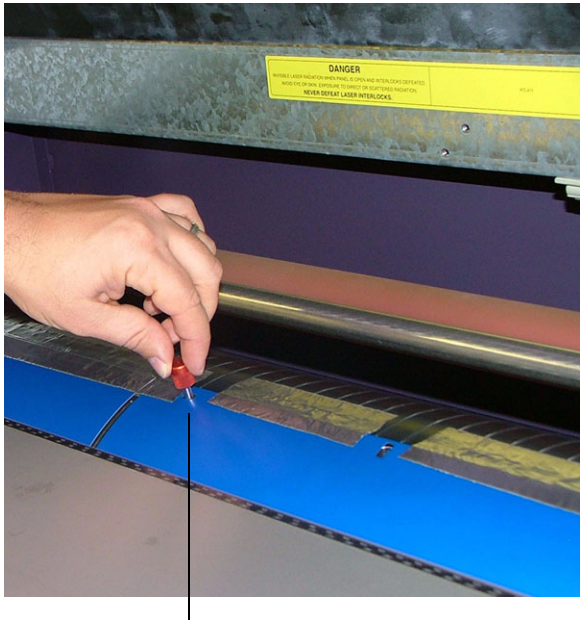


Figure 52: Removing registration pins

CAUTION: Failure to return the registration pins to the pin holder after taping the plate to the drum may cause damage to the laser head and result in mechanical and laser radiation hazards. If any of the six pins are not in the pin holder, the interlock is activated. The motors cannot operate and exposure cannot begin.

12. Use one large piece of aluminum masking tape and cover all the small pieces you affixed earlier in step 3 on page 53.

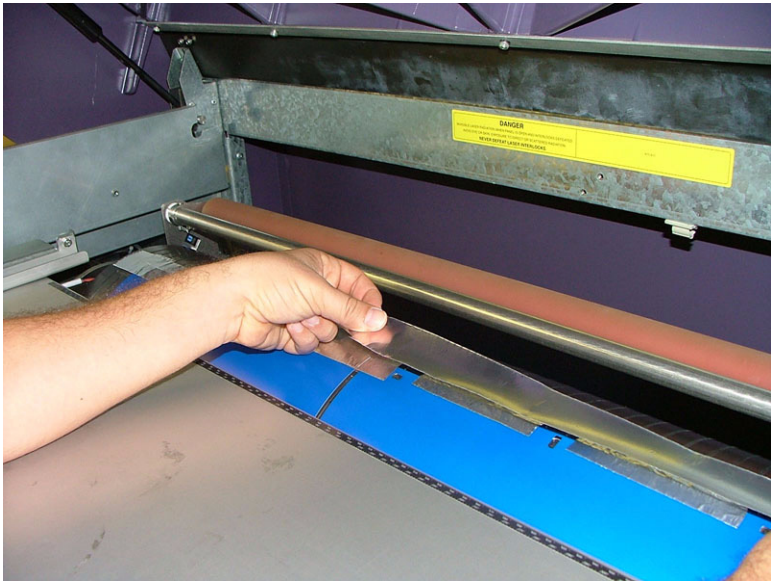


Figure 53: Retaping leading edge of plate with one large piece of aluminum tape

Note: Make sure the tape covers the punch holes, but does not cover more than 15 mm (0.6 in.) of the plate. Do not put any tape over the edge of the registration bar.

Note: Make sure that the tape covers the edge of the first plate that you loaded.

13. To lift the plate roller off the drum, push the roller lever down.

Note: If you do not lift the plate roller, it will automatically be lifted when you lower the top door.

14. Close the top door.
15. Make sure that the *ThermoFlex* Controller status is **Ready**.

Unloading an Offset Plate

To unload an offset plate:

1. To open the top door of the platesetter, on the operation toolbar, click the **Open Top Door** button and lift the top door.
2. Pull the blue knob and push the roller lever up to lower the plate roller onto the drum.
3. Remove the tape from the trailing edge of the plate.

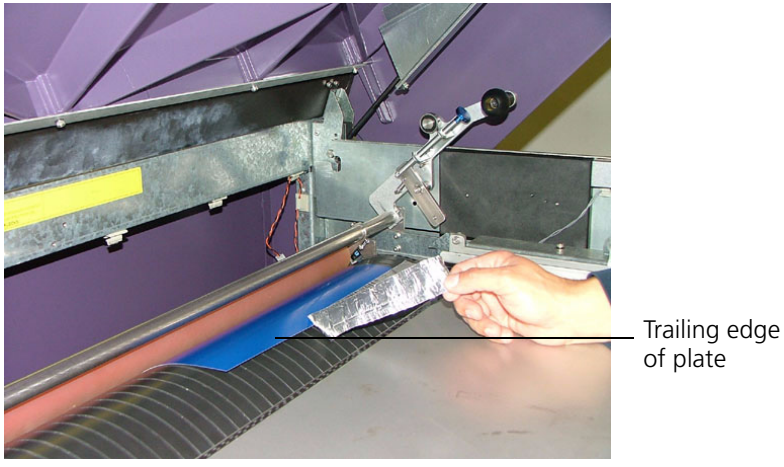


Figure 54: Removing tape from trailing edge of plate

4. Manually rotate the drum and carefully pull the plate outward until you see the leading edge of the plate.

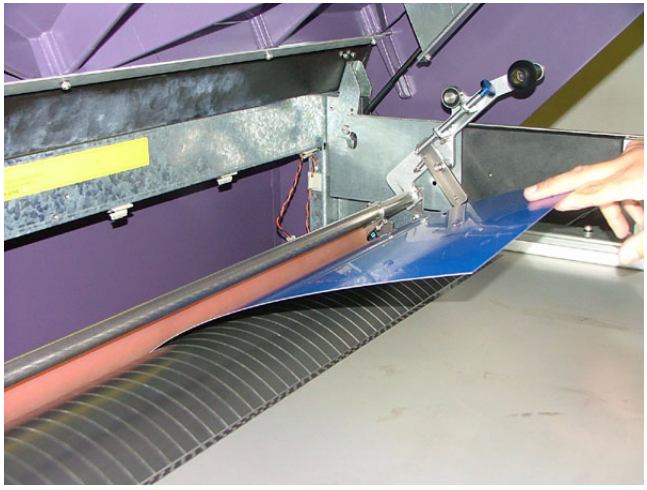


Figure 55: Removing the plate

5. Remove all the tape from the leading edge of the plate.

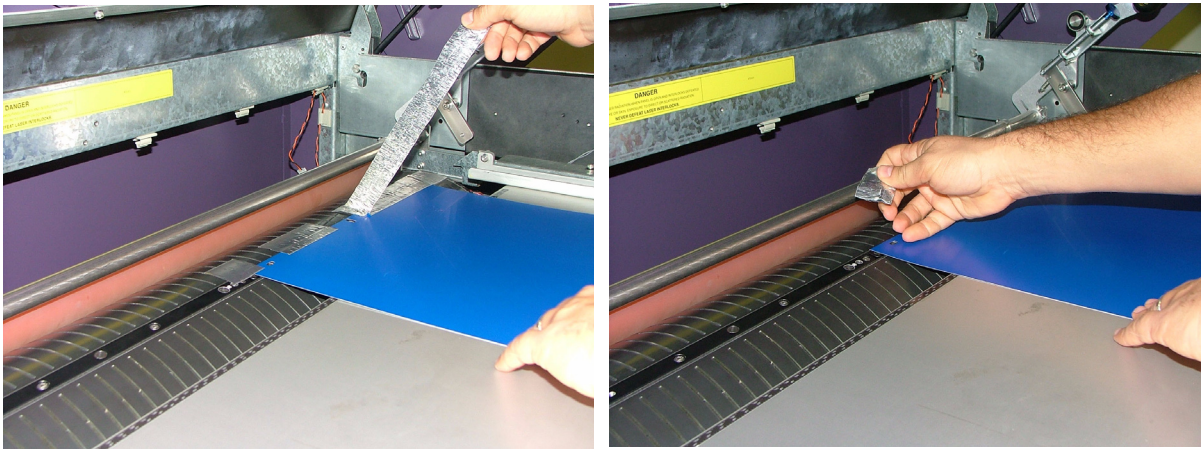


Figure 56: Removing all tape from leading edge of plate

6. Remove the plate from the platesetter.
7. Push the roller lever down to lift the plate roller off the drum.
8. Close the top door.
9. Make sure that *ThermoFlex* Controller status is **Ready**.

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