

Flexcel NX Laminator

Safety Precautions for Operators

English

731-01317A-EN Rev A

Copyright

© Kodak, 2008. All rights reserved.

Kodak, Creo and Flexcel are trademarks of Kodak.

Acrobat, Adobe, Distiller, Illustrator, PageMaker, Photoshop, and PostScript are trademarks of Adobe Systems Incorporated.

Apple, AppleShare, AppleTalk, iMac, ImageWriter, LaserWriter, Mac OS, Power Macintosh, and TrueType are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc., registered in the U.S.A. and other countries.

Hexachrome, PANTONE, PANTONE Hexachrome, and PANTONE MATCHING SYSTEM are the property of Pantone, Inc.

PEARL, PEARLdry, PEARLgold, PEARLhdp, and PEARLsetter are registered trademarks of Presstek, Inc.

XEROX is a trademark of XEROX CORPORATION.

http://graphics.kodak.com/

Internal 731-01317A-EN Rev A

May 2008

Introduction

The Kodak® Flexcel® NX Laminator is designed and manufactured to provide a safe working environment under approved operating conditions.

You must read this document carefully before operating or maintaining the Flexcel NX Laminator to ensure your safety and the safety of others. Keep this manual in a location where operators can easily reference it.



Figure 1: Flexcel NX Laminator


Carriage
Emergency stop button
Rear

Symbols Used in This Guide



DANGER: This indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.



WARNING: This indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.



CAUTION: This indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. This may also alert you to unsafe practices or potential property-damage-only accidents.

Note: A note provides additional information that you may need to consider.

Basic Safety Precautions

The laminator's moving mechanical parts and electrical power constitute the source of hazards.

However, extensive means were taken in the design and manufacturing of the laminator to eliminate the hazards for the operator and service personnel.

- Only properly trained personnel should operate this laminator.
- Do not use any tool on the laminator.
- Do not attempt to service the laminator. Moving parts and high voltage are hazardous to the operator and can damage the machine.
- Disconnect the power to the laminator before performing maintenance.
- Use only the specified laminating materials, maintenance tools, and supplies.
- Disconnect power from the laminator and contact your service representative if the performance of the laminator changes, or if the laminator does not operate according to correct operational procedures.
- Adjust only items specifically covered by the Flexcel NX Laminator Visual Reference Guide. Any other changes or adjustments may create additional mechanical hazards, cause problems in your device's performance, and may require servicing by qualified personnel to return the device to correct working condition.
- Do not operate the laminator if there is any doubt whether the instructions in the previous points were followed. Contact your service representative.

Power and Electrical Elements

Installation



WARNING: Only authorized service personnel are allowed to install or to service the Flexcel NX Laminator.

These technicians are trained, authorized, and certified in the proper procedures for working with and adjusting the mechanical and electrical components of the laminator.



WARNING: Do not connect the laminator to the power supply before the laminator is installed by authorized service personnel.

Electrical Connections

Electrical Specifications

- Rating: 200–240 V AC
- Line voltage
  - ❒ Dual-phase supply in a 120 V configuration
  - ❒ Single-phase and neutral in a 230 V configuration
- Supply frequency: 50/60 Hz ±1.5%
- Power line connections must include three pins: two phases (or phase and neutral) and one safety ground.



DANGER: There is a hazard of fatal electric shock if a safety ground is not provided.

- The cable connector (male, 3-pin: 2 phases and safety ground) is supplied with the laminator.
- Electrical cord: 177 in. (450 cm)

Configurations

One configuration is available: 50/60 Hz.

- **60 Hz power output (North America):** Line voltage must be 208 V AC, 8 A, 60 Hz ±1.5%, two phases and safety ground.
- **50 Hz power output (Europe):** Line voltage must be 200–240 V AC, 8 A, 50 Hz ±1.5%, phase and neutral and safety ground.

AC Mains Power Outlet

The AC mains power electrical outlet must be three-pin and grounded.

- Europe: 3-prong, grounded, 230 V AC, single phase, 50 Hz, 20 A
- North America: 3-prong, grounded, 120 V AC, single phase, 60 Hz, 20 A

AC Mains Power Cable Plug

- Europe: 3-pin, 2-pole, 3-wire, 230 V, 16 A, 6 o'clock (6 o'clock orientation of the ground connection) ,IEC60309
- North America: 2-pole, 3-wire, 250 V,15 A, L6-15P locking plug

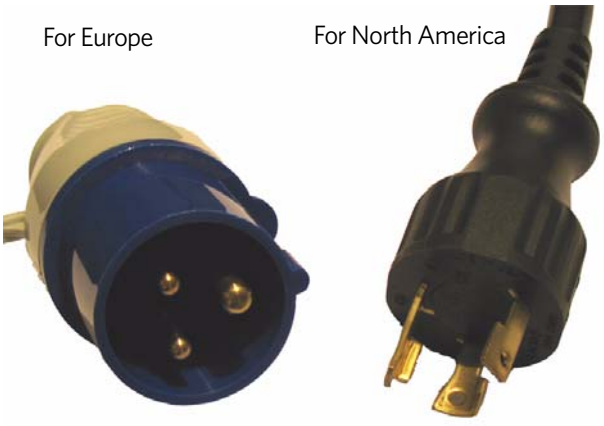


Figure 2: Power cable plug types:

WARNING: Do not alter any electric wiring. Do not alter the power cord or plug.

Electrification Hazard

The electrical circuits are located inside the electrical enclosures. These enclosures may bear the following warning label.



Figure 3: 374A7B951

WARNING: Do not attempt to open any enclosure. Do not use any tool.

Laminator Control Switches and Emergency Stop Buttons

The Flexcel NX Laminator has one On/Off switch, four functional buttons and three emergency stop buttons.

Name	Function	Location
On/Off switch	Connects and disconnects from the AC mains power	Right side
Emergency stop buttons (3) (red)	Stop laminator's mechanical movements in an emergency	Front panel, left panel, right panel
LAM button (green)	Starts the lamination process	Left panel
HOME button (blue)	Moves carriage to home position after lamination	Front panel (left button)
VAC button (gray)	Initiates and stops vacuum operation	Front panel (middle button)
FAULT button (amber)	Indicates an error when blinking, and resets the laminator	Front panel (right button)

Disconnecting from the AC Mains Power

The Flexcel NX Laminator's On/Off switch turns the power on and off. It is located on the left side of the laminator.

WARNING: You can totally disconnect from the AC mains power only by turning the On/Off switch to Off, or by unplugging the power cable from the AC mains power supply outlet.



Figure 4: On/Off switch

Emergency Stop Button

The laminator has three red emergency stop buttons, located on the front, left, and right panels. Each emergency stop button stops the laminator's mechanical movements. Pushing the emergency stop button does not disconnect electricity from the laminator.

To stop the laminator's operation:

➢ Push the red emergency stop button.

To restart the laminator after pushing the emergency stop button:

1. Turn the emergency stop button that you pushed clockwise.

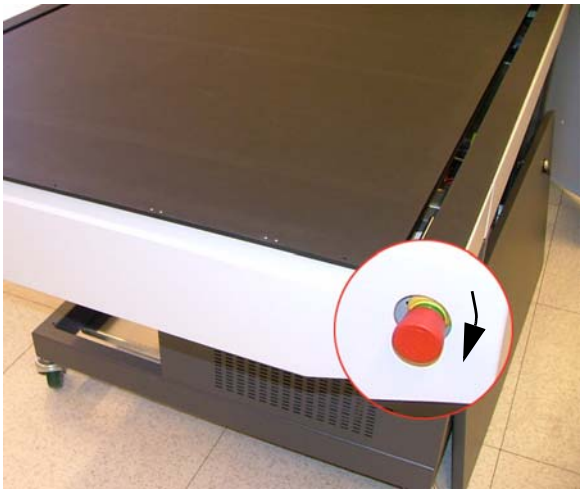


Figure 5: To release the emergency stop button, turn it clockwise

2. Push the Fault button until the three buttons on the operation panel remain on (about five seconds).

Functional Buttons

The laminator has four indication lights/buttons:

- **HOME** (blue): Moves the carriage to home position
- **VAC** (gray): Initiatiates and stops the vacuum pump. The vacuum pump shuts off automatically after 10 minutes of inactivity.
- **FAULT** (amber): Indicates an error that affects the laminator's function, and resets the laminator
- **LAM** (green): Starts lamination

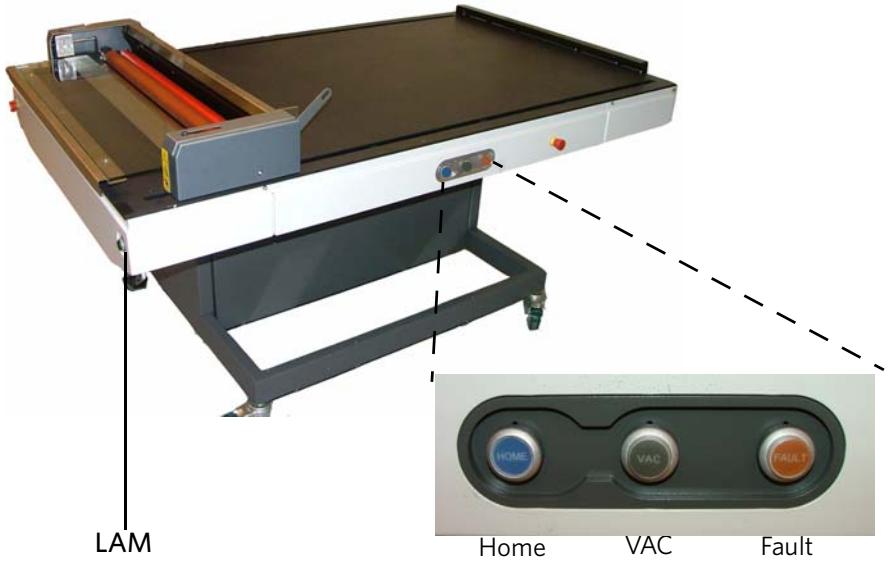


Figure 6: Functional buttons

Indication Lights

- A blinking indication light indicates that you must push that button to continue operation or to reset the laminator.
- A lit indication light indicates that the button's function is in progress.
- All indications lights blink together when you activate the emergency stop.

Power-related Precautions



WARNING: You must observe *all* safety precautions in this document when operating the Flexcel NX Laminator. *In addition* to all other precautions mentioned in this document, you must observe the following basic power-specific precautions.

- Use only the recommended power source to run the Flexcel NX Laminator.
- Consult a qualified and licensed electrician if you have any questions about the power source and its safety features.
- If the power cord is run across the floor, provide adequate protection to the cord to avoid damage from foot traffic, dropped items, or rolling items.
- Disconnect power to the laminator before performing maintenance.
- Do not insert fingers, hands, or items into openings in the Flexcel NX Laminator. Items may come in contact with electrically energized components.

Mechanical Elements

Mechanical hazards are present during the laminator's essential operations, and the operator interacts with movable parts.



WARNING: Hazardarous moving parts. Keep fingers and other body parts away. Follow the operation procedures as described.



WARNING: Roll up long sleeves, gather long hair, and remove neckties and any piece of clothing or jewlery that could get caught in the rollers or in the tabletop slots.



WARNING: Do not leave any loose objects, tools, or parts on the laminator tabletop or carriage, or anywhere inside the laminator. Such an object may become caught in the moving carriage, harm the carriage or other parts of the laminator, and thus create a hazard or damage the device.

Three emergency stop buttons enhance operator safety. If a body part or clothing becomes caught or trapped in the laminator , immediately push one of the emergency stop buttons.

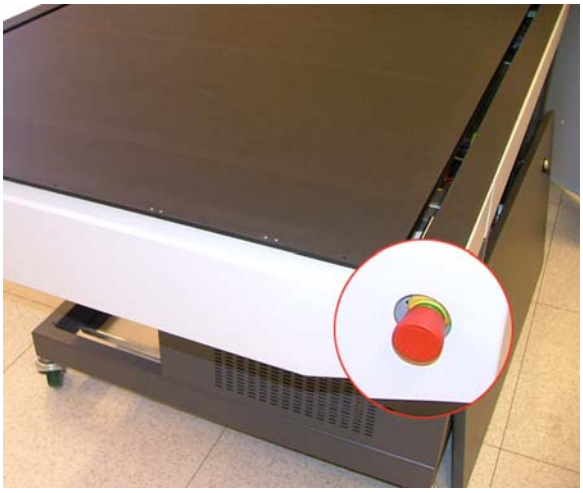


Figure 7: One emergency stop button

Carriage

The laminator carriage travels along two rails within slots that are cut through the laminator tabletop.

WARNING: Do not place hands or fingers in these slots, or in any other areas on the tabletop or carriage unless the device is disconnected from the AC mains power supply.

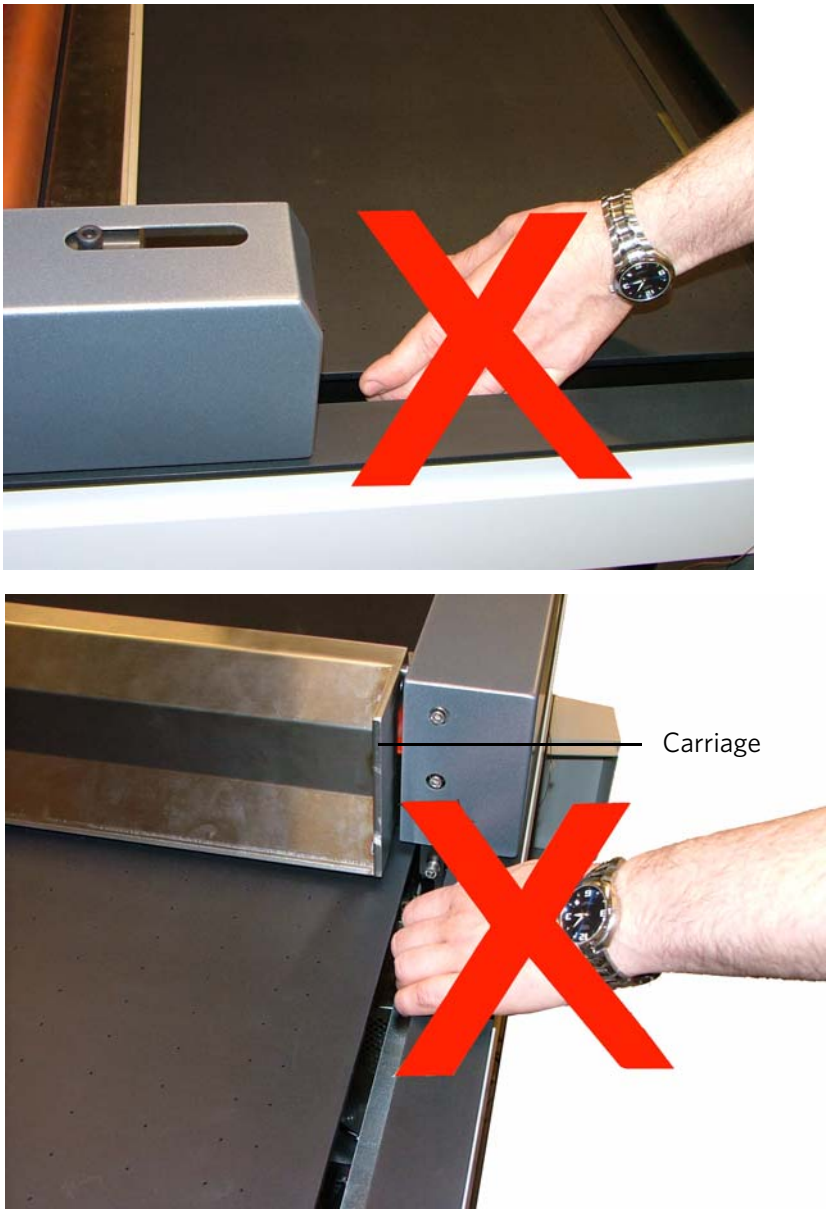


Figure 8: Tabletop slots

Rollers

Lamination sheets feed into the rollers as the carriage travels along the table.

WARNING: Do not place fingers into the rollers when the carriage is moving. The rollers can pull your fingers and hands into the laminator.

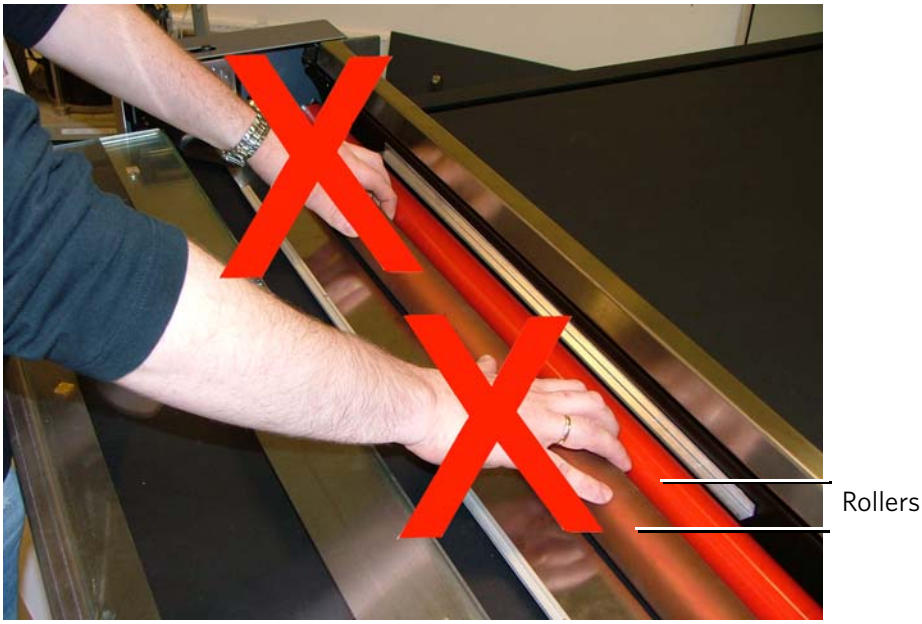


Figure 9: Rollers

CAUTION: Keep the carriage in home position after lamination, and when the laminator is not in use. This will help to prevent the rollers from coming together and forming a flat spot, which could possibly damage the rollers.

Mechanical-related Precautions

WARNING: You must observe *all* safety precautions in this document when operating the Flexcel NX Laminator. *In addition* to all other precautions mentioned in this document, you must observe the following basic mechanical-specific precautions.

- Roll up long sleeves, gather long hair, and remove neckties and any piece of clothing or jewlery that could get caught in the rollers or in the table slots.
- Do not insert fingers, hands, or items into openings in the laminator. Items may become entangled in moving parts.
- After you start a lamination job, move away from the device.
- Do not touch the balance weights when the carriage is moving.
- Always return the carriage to home position after a lamination job, and keep the carriage in home position when the laminator is not in use.

Laminator Enclosures

The laminator enclosure, which includes the front, side, and rear doors and/or panels, the upper table, and the carriage enclosure, is designed to protect you from electrical and mechanical hazards.
Keep all parts and panels of the laminator complete, unharmed, and intact.



DANGER: Do not attempt to open or access the electrical panel. Do not use any tool on the electrical panel.



WARNING: *Never* dismantle any enclosure cover or internal barrier from the laminator.



WARNING: *Never* use tools on the laminator.

Basic Operation

Important: During operation, observe all safety precautions mentioned in this guide.

Note: For indication lights descriptions, see *Indication Lights on page 8.*
For full operation instructions, see the *Flexcel NX Laminator Visual Reference Guide*.

1. If you changed plate sizes, adjust the balance weights' position.

   Note: One balance weight is located on each side of the carriage.

   - ❒ For 31.5-in. (80-cm) plates, move the balance weights away from the tabletop.
   - ❒ For 35-in. (89-cm) plates, move the balance weights toward the tabletop.

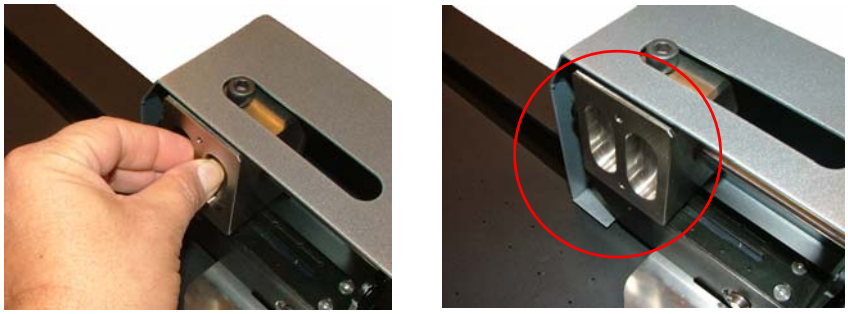


Figure 10: Moving the balance weight into position for a small plate

2. Place a Flexcel plate on the tabletop, against the stoppers.



Figure 11: Flexcel plate on tabletop

3. Peel off about 10in. (25 cm) of the Flexcel plate's protective cover.



Figure 12: Protective cover

4. Close the carriage cover so that the edge of the Flexcel plate's protective cover is resting on top of the carriage cover.



Figure 13: Carriage cover closed

5. Load the thermal imaging layer (TIL) into the carriage.

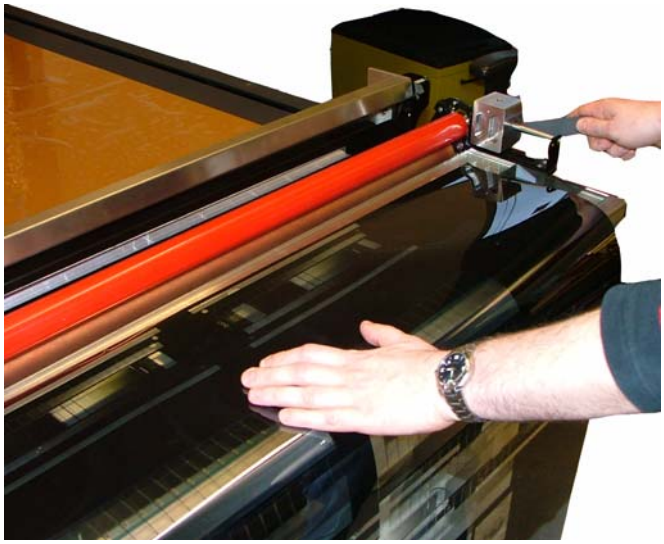


Figure 14: Loading the TIL

6. To secure the TIL in the carriage, push the lever.



Figure 15: Handle in closed position to secure the TIL

7. Push the lamination button and move away from the laminator.

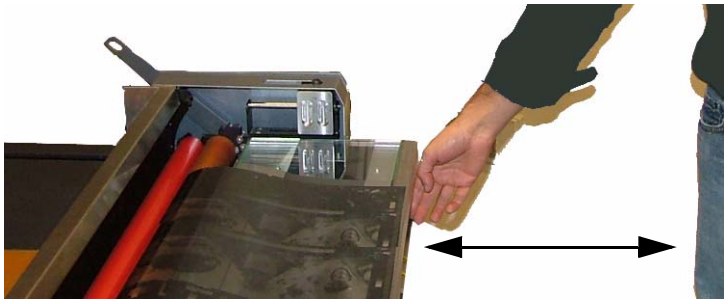


Figure 16: Pushing the lamination button while maintaining a safe distance from the laminator

Warning Label Locations

WARNING: The warning labels are provided for operator and service personnel safety. Always comply with the warnings.

The following pages show the laminator warning labels and their locations.

Make sure that the warning labels are in good order; notify your service engineer if a label needs to be replaced.

Warning Labels



Figure 17: 382-01894A



Figure 18: 382-01894A (2)

Warning Label Locations on the Flexcel NX Laminator

See the following figures for locations of warning labels on the Flexcel NX Laminator.

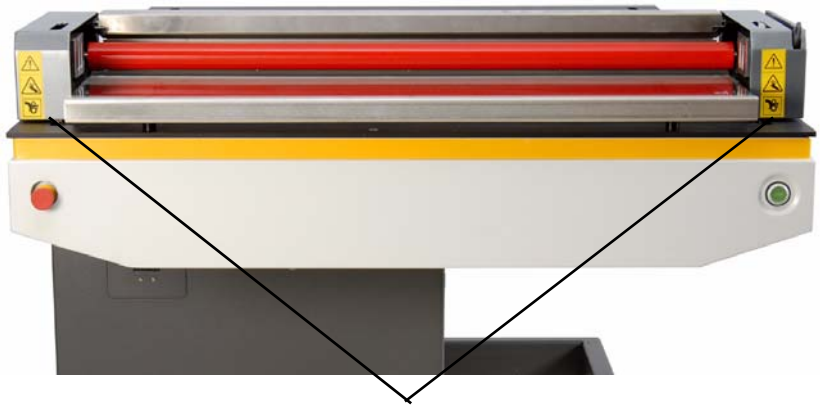


Figure 19: Left side view



Figure 20: Right side view

Kodak

Eastman Kodak Company
343 State Street
Rochester, NY 14650 U.S.A.

© Kodak, 2008. All rights reserved.
TM: Kodak

To learn more about solutions from Kodak, visit http://graphics.kodak.com/.

Subject to technical change without notice.