SOP Reference #: LF005_LAM_Sheets

Operation/Task:	**Digital Laminating – Rigid Sheets**			Equipment:	**Graphic Finishing Laminator**
Owner:	Digital Manager	Date Created: Revision History:	3/11/26 See last page	Department:	Digital Studio

ALERTS (see below): Critical Step ◆ Quality Check ☑ Tip ☺ Team Safety ✚

Purpose: This SOP/work instruction describes the process of Laminating Sheets off the large format printer

Step #	Alerts	Step Description - "What to Do"	"How to Do it"	"Why to Do it"
1	✚	Safety	• Keep hands, hair, and loose clothing away from rollers. • Do not bypass safety guards or emergency stop functions. • Ensure work area is clean and free of obstructions. • Know location of **Emergency Stop** before operation.	Safety First

2	☑	Pre-Op Inspection	Machine Inspection
			
			• Ensure laminator is powered off before inspection.
			• Check rollers for:
			  ○ Cleanliness (no adhesive buildup)
			  ○ Damage or uneven wear
			• Verify safety features are functional (emergency stop, foot pedal).
			
			Power On
			
			• Turn on main power switch.
			• Set direction control to **forward**.
			• Ensure speed control is set to **minimum** (1) before starting.
			
			Roller Gap Adjustment
			
			• Raise upper roller using hand crank.
			• Insert rigid substrate as reference.
			• Lower roller until it just contacts the substrate.
			• Add slight pressure (typically minimal for rigid boards).
				Inspection of All functional machine components helps to ensure successful lamination

3	◆	Material Prep	Laminate / Film Preparation • Ensure print is properly trimmed and square. • Remove dust or debris from roll. Substrate Preparation • Clean surface with lint-free cloth. • Remove dust, oils, or particles. • Ensure board is flat and not warped. Film Make-Ready • If film / laminate has a release liner, slit and separate, then tape the liner to the garbage take up core rod located above the supply rod.	Dust / dirt / debris caught underneath the laminated print will likely result in a re-print / re-lamination. Flat sheets are necessary for lamination.

4	◆	Lamination	Alignment
			
			• Place substrate on feed table.
			• Align film / laminate over substrate.
			• Use a tape hinge at the leading edge.
			
			Loading
			
			• Insert leading edge into rollers evenly. Use a sled if necessary.
			• Ensure graphic and board are aligned and straight.
			
			Operation
			
			• Engage foot pedal or run control.
			• Feed material slowly into rollers.
			• Maintain light, even tension on graphic to prevent wrinkles.
			• Do NOT force material—allow rollers to pull naturally.
			
			Monitoring
			
			• Watch for:
			  ○ Wrinkles or bubbles
			  ○ Skewing (misalignment)
			• Stop immediately if issues occur.
			
			Completion
			
			• Allow board to fully exit rollers.
				To ensure a successful lamination / graphic application mount.

			• Support board on each side of laminator with production tables to prevent bending or dropping.	

5	☑	Post-Lamination + Shutdown	• Inspect finished piece for:
			  ○ Bubbles
			  ○ Silvering
			  ○ Misalignment
			• Trim edges if required.
			• Lay flat to cure (if applicable to adhesive).
			• Reduce roller pressure.
			• Set speed to zero.
			• Power off machine.
			• Clean rollers if adhesive transfer occurred.
				Quality Control / Make Sure Laminator is back to good clean and working condition for the next job.

Notes: ☺

Maintenance (Basic Operator Level)

- Clean rollers regularly with approved cleaner (denatured or isopropyl alcohol)
- Remove adhesive buildup immediately.
- Report any:
  - Roller damage
  - Unusual noise
  - Uneven pressure

Troubleshooting Guide

Issue	Possible Cause	Solution
Wrinkles	Uneven tension or pressure	Re-align and reduce tension
Bubbles	Dirty substrate or fast speed	Clean surface, slow down
Silvering	Low pressure	Increase roller pressure slightly
Skewing	Misalignment at entry	Reposition and start straight

Best Practices

- Always run a test piece before production.
- Use minimal pressure—too much can damage prints.
- Keep consistent feed speed.
- Never leave machine unattended while running.

Definitions:

Revision History	Description of Changes	Requested by	Date
Rev 1	First posting to intranet	Digital Manager	3/2026

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