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#### WARNINGS & SAFETY

DO NOT OPERATE THIS LAMINATOR WITHOUT FIRST REVIEWING THE OPERATORS MANUAL IN ITS ENTIRETY.

NEVER OPERATE THIS MACHINE WITH REMOVED, DAMAGED OR MISSING PARTS - SHUTDOWN AND DISCONNECT FROM THE ELECTRICAL SUPPLY.

IF THERE WERE TO EVER BE A MECHANICAL OR ELECTRICAL MALFUNCTION IMMEDIATELY UNPLUG THE MACHINE

NEVER SERVICE THIS MACHINE WITHOUT FIRST DISCONNECTING THE MACHINE FROM THE ELECTRICAL SOURCE.

DO NOT TOUCH THE HEATED ROLLERS AS THEIR TEMPERATURE MAY EXCEED 350 DEGREES FAHRENHEIT.

**NEVER** ALLOW SHARP OBJECTS SUCH AS KNIVES OR SCISSORS TO CONTACT THE ROLLER SURFACE AS A POTENTIAL SHOCK HAZARD EXISTS AS WELL AS THE POTENTIAL TO INFLICT SERIOUS AND IRREPARABLE DAMAGE TO THE SILICONE ROLL COVERING OR THE OPERATOR.

CAUTION MUST BE EXERCISED TO KEEP HANDS FROM THE NIP POINT OF THE LAMINATING AND PULL ROLLERS TO AVOID INJURY DUE TO HIGH PRESSURE AND HEAT AT THESE POINTS.

FAMILIARIZE YOURSELF WITH THE REVERSE FEATURE, **DO NOT WEAR LOOSE-FITTING CLOTHING AND JEWELRY AND HAIR MUST BE PUT UP AND KEPT AWAY FROM THE NIP POINT** THESE ITEMS COULD BE PULLED INTO THE LAMINATOR SINCE THE ROLLERS ARE ROTATING.

USE MULTIPLE PEOPLE TO UNPACK AND MOVE THE LAMINATOR AS IT WEIGHS IN EXCESS OF 75 POUNDS. LEAVE REPAIRS AND MAINTENANCE TO A QUALIFIED PERSONNEL.

NEVER LEAVE THE MACHINE UNATTENDED WHILE IN USE.

SHUT THE MACHINE DOWN AND ALWAYS KEEP ROLLERS GAPPED WHILE THE MACHINE IS NOT BEING ATTENDED. THIS GREATLY EXTENDS THE LIFE OF THE ROLLERS AS WELL AS SAVING \$ IN LOST ENERGY. REMEMBER YOUR NEW LAMINATOR TAKES AS FEW AS 4 TO 5 MINUTES TO WARM UP RATHER THAN 20 OR 30

**DO NOT ALLOW THE ROLLERS TO EXCEED 300 DEGREES** DOING THIS WILL GREATLY INCREASE THE LIFE OF THE LAMINATING ROLLERS – THOUGH YOUR MACHINE IS PERFECTLY CAPABLE OF RUNNING FILM RATED AT 300 DEGREES PRO-LAM RECOMMENDS USING A FILM THAT IS RATED AT A LOWER TEMPERATURE - THIS WILL INCREASE YOUR ROLLER LIFE

DO NOT ADVANCE THE FILM THROUGH THE LAMINATOR WHILE THE ROLLERS ARE COLD THIS MAY RESULT IN THE SURFACE BEING TORN FROM THE ROLLERS BY THE AGGRESSIVE LAMINATING FILM ADHESIVE.

DO NOT PLACE THE LAMINATOR NEAR MOVING AIR AS THIS MAY UNPREDICTABLY COOL THE ROLLERS.

### **ELECRICAL REQUIREMENTS**

# A **GROUNDED** RECEPTICAL MUST BE USED, MAKE SURE THAT THE RECEPTICAL MATCHES THE MACHINE REQUIREMENTS

MODEL	VOLTS	AMPS	PLUG
PL1200XS	120	10	*
PL1200HP	120	20	*
PL227	120	20	*
PL227HP	240	20	L6-20
PL238	120	20	*
PL238wf	240	20	L6-20
PL244wf	240	30	L6-30

\*Conventional plug however the outlet must be dedicated (no other devices on the same circuit).

# The electrical installation must meet local and federal electrical codes and a qualified person must make the installation.

If a laminator is hard wired you must install a "disconnect" switch

**!!!** These Requirements must be strictly adhered to, as an incorrect installation will void your warranty!!!

# **Specifications**

### Hard specs

Model	Dry/Ship	Height	Width	Depth
	weight			
PL 1200	40# / 60#	21"	24"	21"
w/o stand				
PL 1200	60# / 80#	51"	24"	21"
w- stand				
PL 227w/o	70# / 100#	21"	39"	21"
stand				
PL 227w	90#/120#	51"	39"	21"
stand				
PL 238wf	140# / 170#	50"	50"	21"
PL 244wf	170# / 200#	50"	56"	21"

Models shown in their standard configuration

### Film specs:

1				
Model	Max	Max	Max	Max motor
	upper roll	lower roll	thickness	Speed
PL 1200	11"	6"	10 mil+	18fpm
w/o stand				
PL 1200	11"	12"	10 mil+	18fpm
w- stand				
PL 227	11"	6"	10 mil	16fpm
w/o stand				
PL 227	11"	12"	10 mil	16fpm
w stand				
PL 238wf	10"	12'	5-10 mil	7fpm
PL 244wf	10"	12"	5-10 mil	7fpm

Standard models in their standard configuration

# Unpacking

Because the series II laminator is available in several different sizes and configurations, some of the following steps may not be applicable to your specific shipment. However, it may be a good idea to read over the following documentation to familiarize yourself with your machine and the technology involved

Typical shipment of the series II laminator is as follows.

- A. Your laminator was shipped as a tabletop model.
- B. Your laminator was shipped with a stand and the stand requires minimal assembly



Included with your shipment you should find the following, possibly in multiple boxes.

- 1. Your laminator
- 2. The laminator stand (optional)
- 3. One set (2) of film supply roll mandrels
- 4. Mandrel Towers
- 5. Feed Table
- 6. Gap Control Handle
- 7. Release Liner Winder (Optional)
- 8. Hardware kit



# LAMINATOR UNPACKING

Your laminator is shipped in one box. Some minor assembly is required. You should clear sufficient space to unpack the laminator. Make sure this area will provide access to both sides of the laminator as well as the front and back of the machine.

The laminator is packed in specially designed material for shipping your laminator safely **The Packing material should be retained for transportation** or for shipping in the event of a warranty or service issue.

In the box with the laminator you should find the feed tray and enclosed hardware. The supply mandrels will be shipped with the stand if the machine was purchased without a stand the mandrels should be included with your laminator.

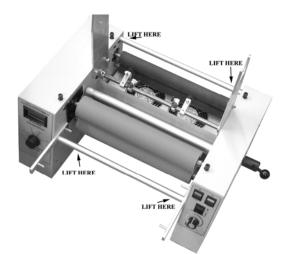
1. Remove the feed tray



2. Remove the center piece of foam



3. Using at least two people pull the laminator and remaining packing, by **the lift points**, from the box. Use great care, the laminator may be quite heavy, dropping it will damage it.





### !!! DO NOT LIFT THE LAMINATOR BY ANY OF THE COMPONENTS BETWEEN THE FRONT ROLLERS AND THE REAR ROLLERS. DAMAGE MAY OCCUR !!!

- 4. Set the laminator on the floor and lift one end at a time and remove the foam shipping caps
- 5. Remove the remaining packing

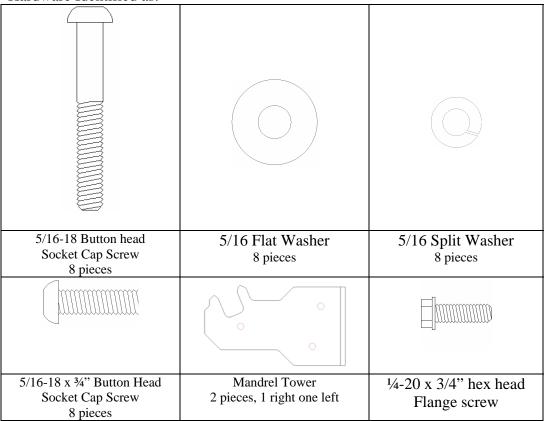


6. Set the laminator aside and clear sufficient space for the stand and its packing

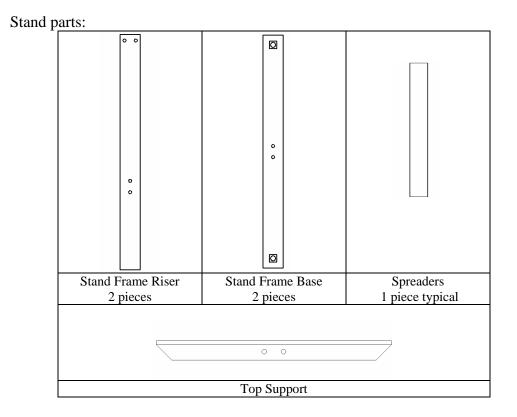
### STAND ASSEMBLY

 $\mathscr{I}$  The stand is an optional item on certain models and may or may not have been included with the purchase of your laminator.

Your laminator stand will require simple assembly. You should clear out sufficient space to unpack the stand. Make sure this area will provide access to both sides as well as the front and back of the stand.



Hardware Identified as:



# **Assembled Stand**

Use the diagrams and instruction on the following pages as a guide to assemble

the stand



When finished your stand should resemble this example from our PL 227hp without attached towers.



Unpack all of the parts and lay them out for accessibility



Install the Casters onto the base.



Make sure the caster is screwed all the way down such as in the left example.

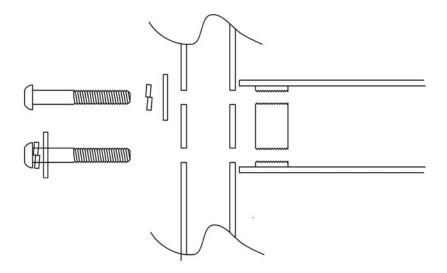
**Stand Assembly** Lay the base on its side and install the riser.



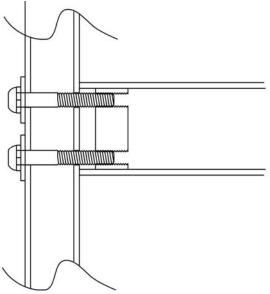
At this point there is not specific alignment to pay attention to, simply attach the riser as shown.



Take note of this illustration that shows the proper bolt placement.



When first tightening the stand, only tighten it enough to start to seat the lock washers.



Tighten the screw until the head of the screw just starts to compress the lock washer but no tighter.



Position the now assembled sides so that the tower screws holes are located to the front. The spreader will be placed in between, you are now looking at the front of the stand.



Place the spreader in between the two stand sides, take note of the mandrel tower holes



Tighten the screws down until the screw head just starts to compress the lock washer.



Install the machine base to the top of the riser as shown. The only orientation that matters is that the angle is mounted to the outside of the stand.



Install the other side and tighten the screws until they are snug but not tight



Install the towers next. There is a right hand and a left hand tower



Pay careful attention to the following picture and the orientation of the mandrel tower.



Test fit the mandrel, make sure that it fits between the mandrel brackets without the left mandrel bracket putting pressure on the mandrel, you should have a small space between the mandrel bracket and the mandrel as shown. If not, your mandrel brackets will have to be adjusted later.

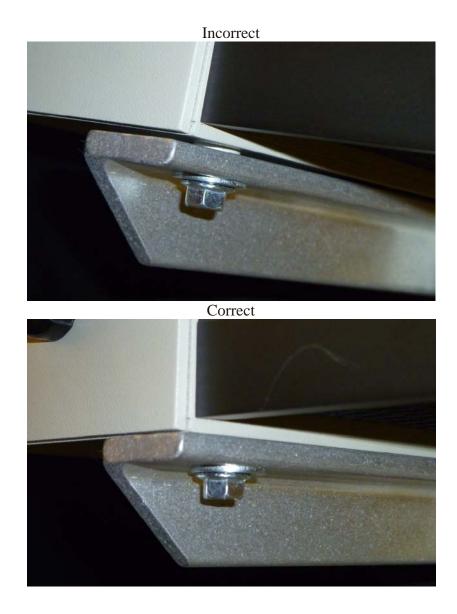
## **MOUNTING THE LAMINATOR**

Set the stand in position on a flat level surface.



Using 2-3 people carefully the laminator on top of the stand, align the inside of the stand with the inside of the panel that sits on it, align the front of the stand with the front of the panel. Install the <sup>1</sup>/<sub>4</sub>-20 hex head screws with their respective washers through the holes in the top rail. DO NOT tighten these screws.

The screw bosses on the bottom of the machine should drop into the pockets on the top stand rail and there should be no space left between the top rail on the stand and the bottom of the machine. Since the components of the stand have not been tightened, it may be necessary to forcefully align each screw pocket with each screw boss.



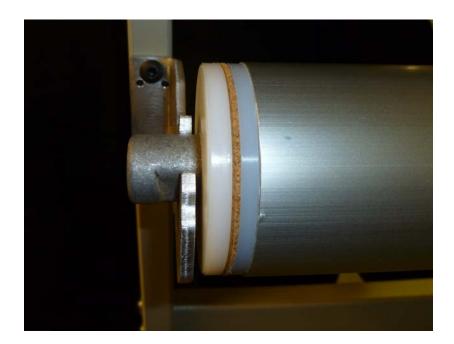
If necessary, install and tighten each screw as you get each screw boss aligned with each pocket. Tighten the  $\frac{1}{4}$  " bolts from the bottom side of the stand rail. DO NOT over-tighten the screws they simply need to be snug.



Tighten the remaining hardware on the stand until the lock washers are fully seated and the hardware is tight.

Install the Mandrel into the stand towers

Adjust the mandrel towers as necessary so that they are straight and provide about 1/8 -3/16" between the left tower and the left hub of the mandrel.



To adjust the mandrel towers, slightly loosen the 5/16" screws that hold the towers to the stand then tighten the small allen screws to tilt the tower in the desired direction, when adjusting the tower to the left, one should always adjust the screws equally top and bottom. This will alleviate mandrel misalignment issues later on.

# **Laminator Assembly**

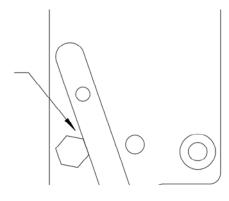
### **Standard Towers with Slitters**

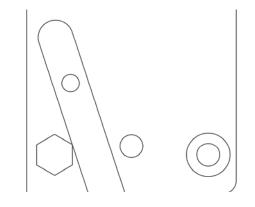
This installation is simple; the towers are installed onto the machine side panels using the included hardware. Distinguish the towers from left and right, the right tower has the extra threaded hole with a ball plunger inserted. The inside face of this right tower is distinguished by the chamfered mounting hole.

- 1. Install left tower using two  $5/16 \times \frac{1}{2}$ " long, hex head bolts.
- Install right tower (ball plunger) with the countersunk hole located toward the front of the laminator and toward the center. Use one 5/16 x <sup>1</sup>/<sub>2</sub>" long, hex head bolt in the rear hole
  Use one 5/16 x <sup>1</sup>/<sub>2</sub>" long flat head Allen screw in the front hole



Take note that on the right tower the rear bolt must be oriented so that the side of the bolt is parallel to the side of the slitter-actuating handle (see diagram below.). Do not over tighten bolt it is better that it be looser rather than over tightened





Correct Notice both bolt and arm lay flush and parallel

Incorrect, Notice tip on bolt is preventing arm from seating 3. Tighten all other bolts snug (do not over tighten).



### **Standard Towers** w/o Slitters

These towers will be included with the hardware pack they do not have a particular orientation (unidirectional)

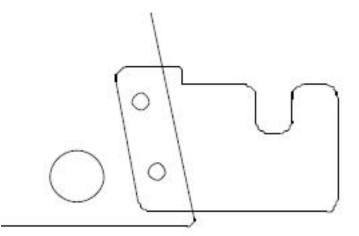
- 4. Install towers on the left and right side using two 5/16 x <sup>1</sup>/<sub>2</sub>" long, hex head bolts each. These towers are ambidextrous and bidirectional, they cannot be installed backward.
- 5. Tighten bolts snug (do not over tighten).

### Lower towers w/o Stand

Your machine is available in two different configurations.

- A. Without a stand, your towers will have to be installed on the laminator below the feed tray.
- B. With a stand, your towers should already be installed

Lower tower installation on the machine is similar to the tower installation for the standard upper towers (without slitters).



Lower machine tower, viewed from left side.

# **Gapping Handle**

The gapping handle is included in the hardware pack that came with your laminator

This handle is for raising and lowering the rollers. The rollers should remain in the gapped or raised position unless the machine is in operation.

### To install,

Thread onto the end of the camshaft located on the right side of the machine.





(machine shown with optional tower, disregard differences)

### To operate,

Simply turn clockwise, the rollers will raise and lower with every revolution of the handle.

When adjusting the roller pressures make sure that the handle is in the un-gapped position, after making adjustments gap and ungap the rollers to make sure that you did not put too much pressure on the rollers for the cam (gapping handle) to operate.

Gapped Rollers



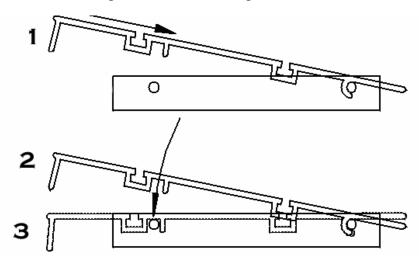
Ungapped Rollers



## **Feed Table Installation**

#### **Feed Table Installation**

1. When installing the feed table it should be held level and square in relation with the laminating roller and with the front of the feed tray tilted as shown. 2. Slide the table forward until the pin boss is against the pin and 3. Drop the front down so that the second pin locks the table in place.



When placing the feed table onto the laminator, always be sure that the laminator is turned off and the rollers are stationary.



Machine with installed table

## Slitters

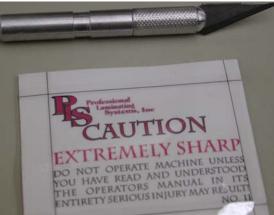
Cut the rubber bands that hold the slitter components from loosening during shipment. Cut the rubber band that holds the slitter handle to the upper idler bar.



Separate the slitters by loosening the top from their positions juxtaposed from each other



Included in the white box with your laminator are the slitter blades, do not install them unless you are using them, always remove them after use, they are a component as shown below and should be stored in a separate container (white shipping box) with a lid.



They are extremely sharp and pose a cut hazard. Always be careful while handling the sharp blades. Keep out of reach of children. Never use the slitters in the presence of children or other incompetent (unqualified) people.

#### Startup:

After any service is performed on the machine or on the initial setup after shipping.

**Reveiw the following, BEFORE YOU FIRST PLUG IN THE MACHINE!** You **MUST** follow this procedure in this order. Use caution, you can burn yourself easily on the laminating rollers it is advisable to use leather gloves for a preliminary heat check of the rollers.

- 1. Turn all switches to off.
- 2. Plug the laminator in. Do not leave the laminator plugged in for more than 3 minutes. **DO NOT** Leave the machine unattended during this startup procedure without unplugging it!!!
- 3. Feel the rollers top and bottom for a minute or so to see if they are warming up, if they do, immediately **unplug the machine** and contact tech support. (406-363-6145). Do not plug the machine back in, lock it out if necessary. If they do not heat, continue to 4.
- 4. Turn the temperature control to its minimum setting (full counterclockwise)
- 5. Turn on the heat / power switch
- 6. Watch the temperature display and make sure that it does not gain temperature. Also feel both bottom and top rollers making sure that they are not heating (if the room is rather cold the laminator may heat but certainly not over 80 degrees). If the laminator heats beyond this point or room temperature, immediately **unplug the machine** and contact tech support. (406-363-6145). Do not plug the machine back in, lock it out if necessary.- your temperature control may need to be replaced. if your machine does not heat, continue to 7.
- 7. If only one roller heats, immediately **unplug the machine** and contact tech support. (406-363-6145). Do not plug the machine back in, lock it out if necessary. If neither roller heats, continue to 8.
- 8. Turn the temperature control to your normal operating temperature or 250 degrees and feel the rollers to make sure they are warming equally (don't burn yourself yet). If they are warming watch the machine until it is heated to its operating temperature make sure that it stops heating at the correct setting.
- 9. If you have reached this step without any errors, you are now ready to laminate, your laminator can regulate its own temperature.

\*\*\*If at any time the laminator does anything unusual or continues to heat when it should not immediately unplug the machine and contact tech support\*\*\*

## PLEASE PROCEED TO THE OPERATORS MANUAL

Keep this manual for future reference