



# Billco®

MOVING GLASS FORWARD.

WASHING CUTTING LAMINATING HANDLING INSULATING DATA

## LAMI-PRO

The Lami-Pro is a customizable laminating assembly line built for producing high-quality laminated glass. The line is designed to clean glass, assemble laminate, heat, and pre-press the unit prior to autoclaving.

- ✓ Modular Design
- ✓ Precision Line Control
- ✓ Minimal Energy Consumption
- ✓ Architectural Industries

### SPECIFICATIONS



60in, 84in, 96in, and 108in  
CONVEYOR WIDTHS



2.2-19mm  
GLASS THICKNESS



5-26 FPM  
PROCESSING SPEED



3in  
MAX LAMINATE THICKNESS



LEARN MORE



## FEATURES

- ✓ **Modular Design:** Allows for custom line configurations and drop-in replacement options
- ✓ **Precision Recipe Line Control:** Simplifies operation and maintains control of all aspects of the line
- ✓ **IR Heating Technology and Convection:** Precise temperature control for a consistent, high-quality laminate
- ✓ **Minimal Energy Consumption:** Lowers production costs
- ✓ **Turnkey Solutions Available:** furnish all supporting equipment such as a PVB cutter, clean room, and autoclave

## LAMI-PRO COMPONENTS

### LOAD/OFFLOAD SYSTEMS

Several conveyor designs are available to better assist each customer's unique needs. Options include, but are not limited to, caster tables, float tables, conveyors, and unstackers.



*Crane Loader*



*Unstacker*



*Tilting Caster Table*



### GLASS WASHERS

High quality laminated glass begins with glass washing. Billco's industrial duty glass washers are the cornerstone processing options.

- ✓ **Low E Compatible**
- ✓ **Continuous or Batch Load Processing**
- ✓ **Pre-Spray Section:** Helps to minimize downstream contamination
- ✓ **Four Corner Lift System:** Provides easy access for inspection or maintenance

## ASSEMBLY AND TRIM CONVEYORS

After glass is cleaned and free of contaminants, the glass moves into a staging and assembly area. The laminate unit is assembled and trimmed in preparation for heating and pressing.

- ✓ **Center-Driven Conveyors:** Minimize conveyor width, making it easier for operators efficiently handle glass
- ✓ **Automatic Tensioning Drives:** Provide smooth, quiet operation and reduce component wear
- ✓ **Independently Operated Conveyors:** Offers control over each stage of the process
- ✓ **Highly Durable Components:** Resist damage from trimming knives for long-lasting wear
- ✓ **Drop Down Decks:** For easy operator pass through to the opposite side of the line
- ✓ **Slide In/Out Roller Deck Sections:** Assist operators in the safe handling of glass and laminate and provides easier access to the center of the conveyor
- ✓ **Area Designed to Handle Large Stock Size**
- ✓ **Glass or Smaller Custom Sizes**

## LAMINATING OVENS

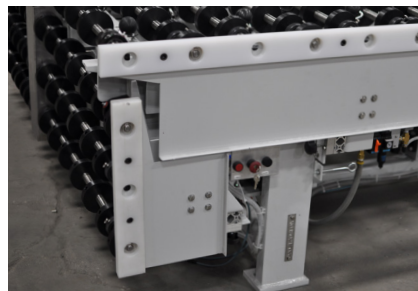
The Pre-Heat and Main Ovens are designed with many innovative heating and energy saving technologies to provide the highest quality laminate.

- ✓ **Precision Heating:** Emitters direct optimum amounts of energy to directly heat the interlayer, reducing overall operating costs
- ✓ **Automatic Louver System:** Regulates oven temperatures for precise temperature control and allows for a quick cool down and protection of components; it also minimizes premature edge sealing
- ✓ **Energy Saving Mode:** Maintains the minimum amount of heat that will allow for a quick startup
- ✓ **Stainless Steel Rollers:** Long-lasting rollers are easy to clean and maintain
- ✓ **LED Status Lights:** Provide real-time operational status on emitters and reflectors
- ✓ **Slide Out Rail Supports:** Simplify access to Emitters for ease of maintenance

### ASSEMBLY AND TRIM CONVEYOR DETAILS



*Pop Up Caster Deck*



*Drop Down Deck*



*Slide In/ Out Roller Decks*

### LAMINATING OVENS DETAILS



*Laminating Ovens and Nip Roll Presses*



*Automatic Louver System*





## LAMI-PRO COMPONENTS



*Nip Roll Press Following Main Oven*

### CONTROL SYSTEM

Every line function from start to finish can be controlled from one intelligent control system. Real-time information, regarding glass positions, oven temperatures, nip roll pressures and more, is available to the operator at the touch screen HMI. Recipe management can also be accessed and maintained at the HMI. Once a recipe is selected, all major functions automatically adjust. User-friendly help screens ensure ease of operation and troubleshooting.

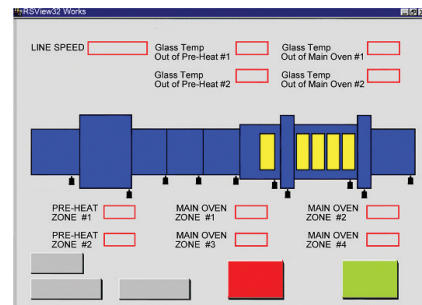


*Control System*

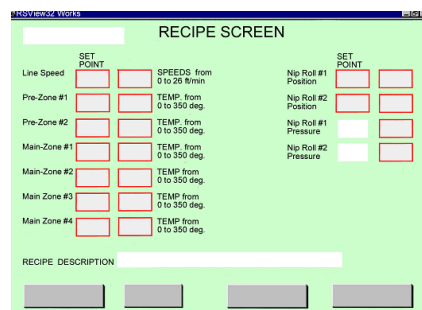
### GLASS WASHERS

Directly following the heating process, the laminate unit is conveyed through a set of Nip Roll Presses to uniformly press the unit.

- ✓ **Precision Compression Tolerances:** Ensure a constant laminate thickness
- ✓ **Side-to-Side Roller Position Monitoring:** Guarantees parallel pressing
- ✓ **Real-Time Positioning:** Delivered via the graphical display to assist the operator
- ✓ **Multilayer Laminate Processing up to 3in thick**



*Control — Main Screen*



*Control — Recipe Screen*

### Billco Services

Billco provides the backbone for flat glass production lines, large and small, with high-quality equipment and 24 | 7 | 365 never-fail relationships. Our stability and expertise are backed by high customer satisfaction ratings, uptime statistics, impressive ROI, and a multi-million dollar industry of ready-to-ship replacement parts. Our Solutions Specialists, 24 | 7 | 365 Technical Support, and Replacement Parts Team are fully dedicated to keeping your line moving. Call or visit our website for more information.

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