

# LAMI-PRO LAMINATING LINE

## DESCRIPTION

The Billco Lami-Pro Laminating Assembly Line is an industrial-duty system designed to produce high-quality laminated glass through a controlled sequence of assembly, heating, air removal, and pressing. The line combines precision conveyor handling, infrared and convection heating, and automated nip-rolling to consistently process laminated glass units. An advanced recipe-based control system coordinates conveyor speeds, oven temperatures, and nip roll settings, allowing proven production parameters to be recalled and automatically applied for repeatable processing. The modular design allows the line to be configured around individual production requirements and integrated with additional loading, unloading, clean-room, PVB cutting, and autoclave equipment.

## HIGHLIGHTS

- ✓ Energy-Efficient Operation
- ✓ Heavy-Duty Construction
- ✓ Architectural Industries

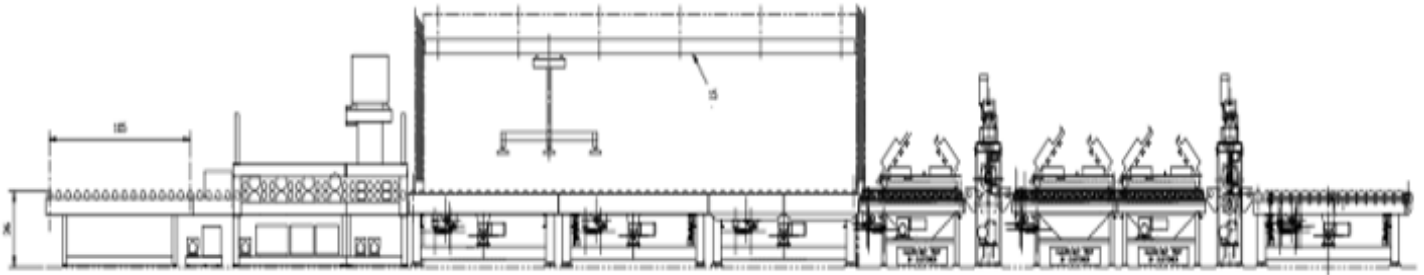
## SPECIFICATIONS

-  **108" (2743 mm)**  
MAX GLASS SIZE
-  **12" (305 mm)**  
MIN GLASS SIZE
-  **2.2-19 mm**  
GLASS THICKNESS
-  **3" (76 mm)**  
MAX LAMINATE THICKNESS
-  **5-26 FPM (1.5-8 m/min)**  
PROCESSING SPEED
-  **36" (914 mm)**  
WORKING HEIGHT
-  **4 Pairs**  
BRUSHES





## TECHNICAL SPECIFICATIONS



## FEATURES

✓ Industrial Duty Construction

### IR AND CONVECTION HEATING

Delivers controlled, consistent heat throughout the lamination process.

✓ Custom Configuration

### PRECISION RECIPE CONTROL

Provides repeatable processing through stored production parameters.

## SYSTEM CONFIGURATION

### LOAD AND OFFLOAD

The Lami-Pro can be configured with a variety of loading and unloading equipment to safely transfer glass into and out of the laminating line. Available handling solutions include caster tables, float tables unstackers, conveyors, and specialized equipment for large-format glass, allowing the system to be adapted to the customer's facility layout and production requirements. Features include:

- ✓ Customizable Configuration
- ✓ Non-Marking Rollers
- ✓ Large-Format Capability

### WASHING

Billco industrial-duty glass washers prepare each lite for lamination by thoroughly cleaning the glass and minimizing contaminants that could affect laminate quality. The washers support both continuous and batch processing and are designed to accommodate Low-E glass used in modern laminated applications. Features include:

- ✓ Low-E Compatible
- ✓ Pre-Spray Section
- ✓ Batch or Continuous Processing
- ✓ Four-Corner Lift System

#### LOAD/ OFFLOAD AND WASHING



Unstacker



Tilting Caster Table



Z-Series Washer

### ASSEMBLY AND TRIM CONVEYOR

After washing, the glass moves through the assembly and trimming area where the laminate is accurately positioned and prepared for heating. The conveyor design provides operators with convenient access to the glass while supporting smooth movement and efficient production of both large stock sizes and smaller custom units. Features include:

- ✓ Center-Driven
- ✓ Automatic Tensioning
- ✓ Independent Sections
- ✓ Drop-Down Decks (Optional)
- ✓ Slide-In/Out Rollers (Optional)

### LAMINATING OVEN

The pre-heat and main ovens precisely heat the laminate interlayer to the required processing temperature before pressing. Infrared emitters deliver controlled energy directly to the interlayer while convection helps maintain consistent temperatures, providing reliable heating with reduced energy consumption. Features include:

- ✓ IR Heating
- ✓ Automatic Louvers
- ✓ Energy-Saving Mode
- ✓ Stainless Rollers
- ✓ LED Status Lights

#### ASSEMBLY AND TRIM CONVEYOR



*Pop-Up Caster Deck*



*Drop Down Deck*



*Slide-In/Out Roller Decks*

#### LAMINATING OVEN



*Laminating Ovens*



*Automatic Louver System*

#### CONTROL SYSTEM

The Lami-Pro control system coordinates the entire laminating process through a centralized touchscreen HMI. Operators can select recipes and monitor critical production information in real time, while automatic adjustments help maintain consistent operating conditions from loading through heating and pressing. Features include:

- ✓ Recipe Management
- ✓ Touchscreen HMI
- ✓ Real-Time Monitoring

#### NIP ROLL PRESS

Two nip roll press sections are positioned throughout the heating process to progressively remove air trapped between the glass and interlayer. High-temperature, non-marking rubber rolls apply controlled pressure using pneumatic cylinders, while motorized roll adjustment and synchronized screw jacks maintain the required opening and parallelism for laminate units up to 3" thick. Features include:

- ✓ Two-Stage Pressing
- ✓ Pneumatic Pressure
- ✓ Motorized Roll Adjustment
- ✓ Synchronized Roll Alignment

#### CONTROL AND NIP ROLL PRESS



*Control Panel*



*Nip Roll Press After Main Oven*