



Billco Teams

A Distribution & Service Company

VERTICAL INSULATED GLASS LINE

DESCRIPTION

The Vertical Insulating Glass Line is an automated system designed to wash, assemble, and press double, triple, and structural insulating glass units, including step and facade glass. Soft Low-E brushes and a high-efficiency drying system ensure clean glass prior to assembly.

After washing, the first glass lite is held by vacuum suction cups while the second lite, fitted with a butyl-applied spacer frame, is positioned using an air cushion system. The servo panel press automatically aligns and presses the glass with uniform pressure for consistent sealing quality.

Controlled by a user-friendly PLC system, the line features automatic pressure adjustment, an energy-efficient vacuum system, and a hydraulic tilting table for handling and sealing large insulating glass units.

SPECIFICATIONS



13.78" x 6.69" (350 x 170 mm)

MIN GLASS SIZE

118.11" x 129.92" (3000 x 3300 mm)

MAX GLASS SIZE



49 FPM (15 m/min)

MAX WASHING SPEED



3-19 mm

GLASS THICKNESS



6

BRUSHES



2.36" (60 mm)

IG UNIT THICKNESS

HIGHLIGHTS

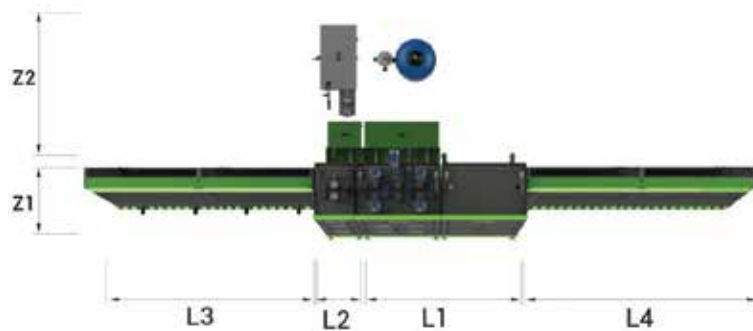
- ✓ Double, Triple, or Structural Insulated Glass Production with Servo Press System
- ✓ Robust Stainless Steel Structural Design





TECHNICAL SPECIFICATIONS

Washing		Width									
		2000	2500	2800	3300	L1	L2	L3	L4	Z1	Z2
Length	3000	118.90" (3020 mm)	119.09" (3025 mm)	119.21" (3028 mm)		96.46" (2450 mm)	23.62" (600 mm)	128.35" (3260 mm)	128.35" (3260 mm)	72.83" (1850 mm)	59.06" (1500 mm)
	4000	158.27" (4020 mm)	158.46" (4025 mm)	158.58" (4028 mm)	158.78" (4033 mm)	96.46" (2450 mm)	23.62" (600 mm)	161.42" (4100 mm)	161.42" (4100 mm)	72.83" (1850 mm)	59.06" (1500 mm)
	5000	197.64" (5020 mm)	197.83" (5025 mm)	197.95" (5028 mm)	198.15" (5033 mm)	96.46" (2450 mm)	23.62" (600 mm)	208.66" (5300 mm)	208.66" (5300 mm)	72.83" (1850 mm)	59.06" (1500 mm)
	Jumbo	XL20	XL25	XL28	XL33						



Pressing		Width						
		2000	2500	2800	3300	Conveyor		Pressing Unit
Length	3000	118.90" (3020 mm)	119.09" (3025 mm)	119.21" (3028 mm)		129.92" (3300 mm)		125.98" (3200 mm)
	4000	158.27" (4020 mm)	158.46" (4025 mm)	158.58" (4028 mm)	158.78" (4033 mm)	169.29" (4300 mm)		165.35" (4200 mm)
	5000	197.64" (5020 mm)	197.83" (5025 mm)	197.95" (5028 mm)	198.15" (5033 mm)	214.57" (5450 mm)		204.72" (5200 mm)
	Jumbo	XL20	XL25	XL28	XL33			

SYSTEM CONFIGURATION

INLET CONVEYOR

The inlet conveyor provides a stable loading area for glass entering the washer. Integrated support legs simplify loading of large glass sheets, and the modular design allows expansion for oversized and jumbo glass applications.

- ✓ Easy Loading Feature
- ✓ Step-by-Step or Continuous Feed Control

WASHING AND DRYING MACHINE

High-quality washing brushes and specially designed drying fans deliver excellent cleaning and drying performance, while the heavy-duty steel frame minimizes vibration for smooth, reliable operation.

- ✓ Maximum Sensitivity with Maximum Quality
- ✓ Low-Maintenance Washing System

OUTLET CONVEYOR

The outlet conveyor transfers clean glass to the next production stage. Its modular design allows for optional extensions to accommodate oversized and jumbo glass.

- ✓ Modular Infrastructure allows Function and Component Additions

ASSEMBLY CONVEYOR

The assembly unit positions spacer frames on washed glass using adjustable side and bottom guides for accurate placement. An integrated lighting system allows operators to inspect glass before pressing.

PRESSING UNIT

The heavy-duty pressing unit uses a hydraulic or optional servo-driven front panel to apply uniform pressure from four sides, while a high-speed vacuum system securely holds the glass during pressing.

PRESS OUTPUT

The press output transfers completed insulating glass units to the secondary sealing process. An optional tilting table is available for handling oversized units and manual sealing applications.



Inlet Conveyor



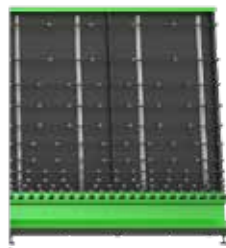
Washing and Drying Machine



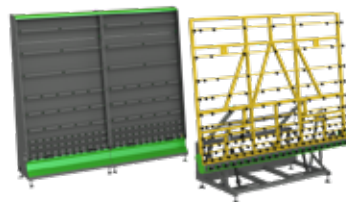
Assembly Conveyor



Pressing Unit



Outlet Conveyor



Press Output





FEATURES

- ✓ Adjustable Washing Speed
- ✓ Remote Access System

- ✓ Jumbo Compatibility
- ✓ Sensitive Four (4) Point Pressing

- ✓ Low-Energy and Low-Sound Drying Cabinet

EXTERNAL BRUSH HOUSING

External brushes improve water circulation during washing while providing observation windows for easy process monitoring.

WATER TANKS

The corrosion-resistant stainless steel water tank features automatic water level monitoring and integrated heaters to maintain the optimal water temperature for consistent washing performance.

OPTIONAL FEATURES

- ✓ Self Cleaning Water Filter

- ✓ Structural Glass Production

PRE-WASHING SYSTEM

A pre-washing system removes dust and debris before the main wash cycle, improving cleaning performance and helping keep the washing system cleaner.

TILTING TABLE

A tilting table transfers glass between vertical and horizontal processes and can also be used for manual sealing of oversized insulating glass units.

BRUSH SPEED SYNCHRONIZATION

The brush speed synchronization system allows operators to adjust brush speeds through the control panel, providing enhanced washing performance for delicate Low-E coated glass.

AUTOMATIC ARGON GAS FILLING

The argon gas filling system automatically calculates the required gas volume based on glass and spacer dimensions, ensuring accurate, efficient filling for every insulating glass unit.

SERVO PRESS FRONT PANEL

A servo-driven press panel automatically adjusts pressing pressure and cycle time based on glass size and thickness, delivering precise, consistent results.

SAND FILTER

The sand filter removes dust and contaminants from the wash water, helping maintain cleaner water, improve washing performance, and reduce water consumption.



Water Tank



Pre-Washing System



External Brush Housing



Servo Press Front Panel