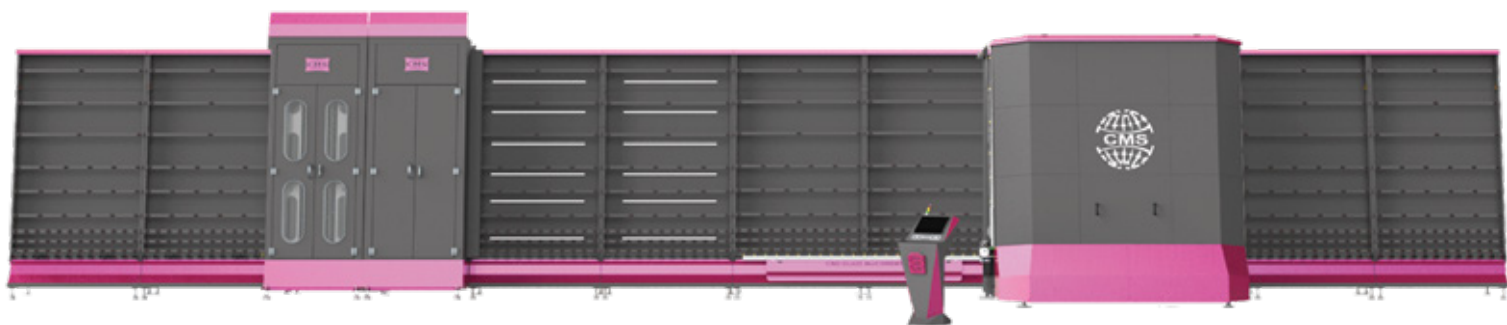


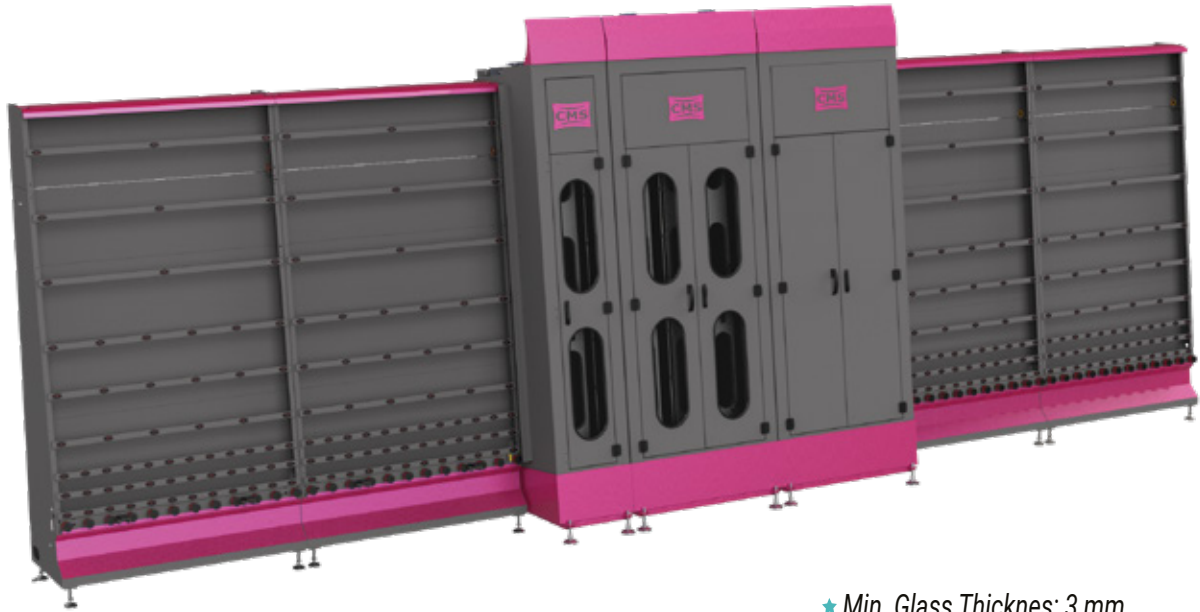
IG4.0



AUTOMATIC GLASS WASHING & COMBINING LINE WITH HYDRAULIC PANEL PRESS

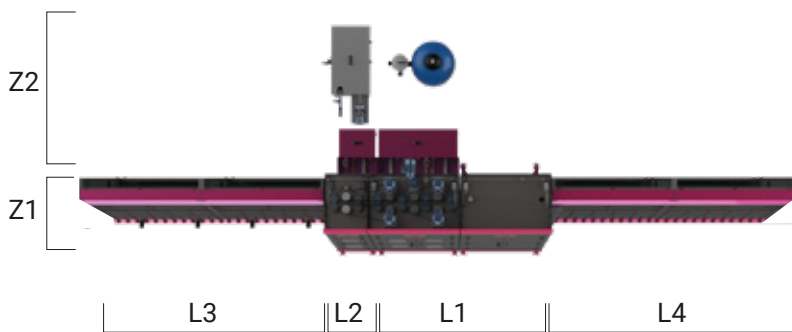
CMS
GLASS MACHINERY

★ **CMS Simplicity**
Combined with Glass Clarity



- ★ Min. Glass Thicknes: 3 mm
- ★ Min. Glass Sizes : 350x170 mm
- ★ Brush Quantity= 6

Models & Sizes



Version	Glass Thickness
VGW4.10	3-12 mm
VGW4.20	3-19 mm
VGW4.30	3-32 mm <i>Automatic Brush Positioning</i>

VGW	Glass Width (W)				L1	L2	L3	L4	Z1	Z2
	2000	2500	2800	3300						
Glass Length (L) 3000	3020	3025	3028		2450	600	3260	3260	1850	1500
4000	4020	4025	4028	4033	2450	600	4100	4100	1850	1500
5000	5020	5025	5028	5033	2450	600	5300	5300	1850	1500
Jumbo	XL20	XL25	XL28	XL33	Please contact your sales representative for different size requests.					

System Configuration

VGW Serie that is specially designed to wash and dry glass sheets automatically with high efficiency and performance, is also configurable according to your needs and your space. VGW serie is upgradable in models and technology for your future needs.

A- Inlet Conveyor



The Inlet Conveyor is a loading zone conveyor that is designed to load glass sheets into the washing line.

- + Easy loading feature on big size glass sheets with loading support legs
- + Compatibility for Jumbo size glass sheets
- + Ability to add both functions and components with modular infrastructure
- + Step-by-step or continuous feed control (*Standard in 4.20 and 4.30 versions*)

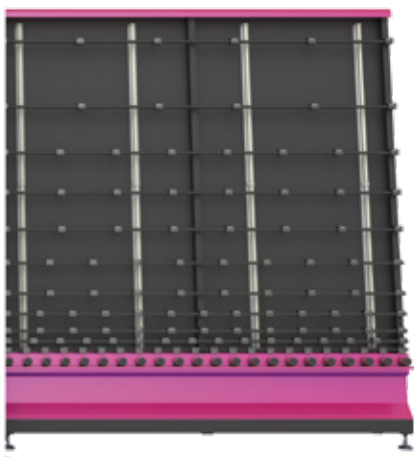
B- Washing/Drying Machine

Washing and Drying Machine has been developed in order to wash the glass sheets with high quality washing brushes at maximum quality and to reliably dry the sheets with specially designed fans.

- + Maximum sensitivity, maximum quality
- + Long-lasting and maintenance-free washing system
- + Smooth drying performance
- + Vibration free working thanks to heavy and robust steel construction structure



C- Outlet Conveyor



The Outlet Conveyor provides the transfer of glass sheets from washing and drying machines to the next process.

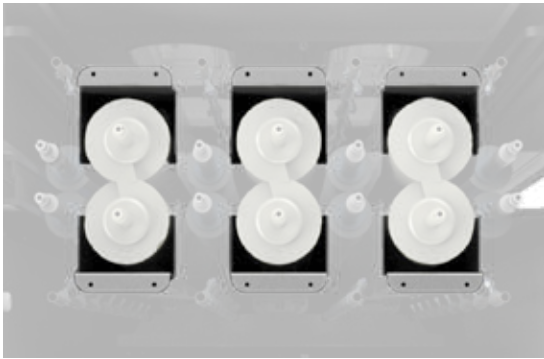
- + Compatibility for Jumbo size glass sheets
- + Ability to add both functions and components thanks to the modular infrastructure

Key Features

✓ Adjustable Washing Speed (Line Speed)

✓ Configurable System Infrastructure

✓ Fast and Stainless Washing Performance

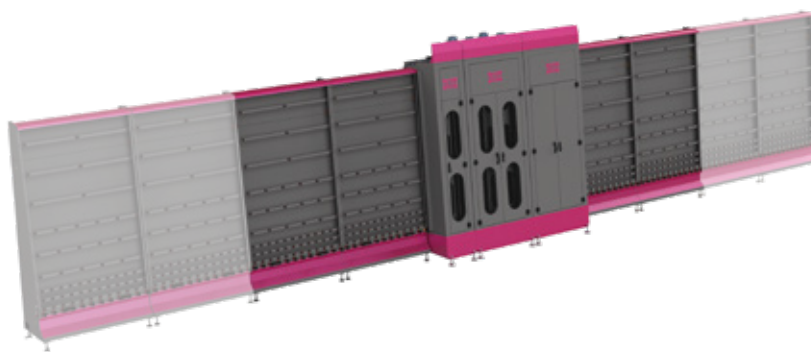
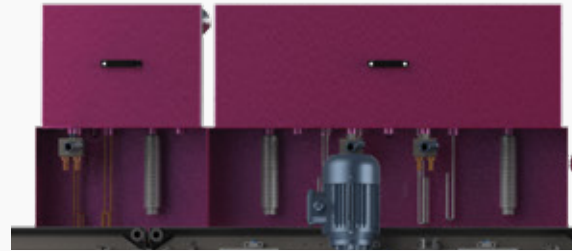


✓ External Brush Cab

External cabs provide safe & clear washing performance and the process can be watched by the help of observation windows.

✓ Water Tank

- + Critical water level control
- + Water temperature control
- + Sand filter



✓ Jumbo & Tandem Glass Pressing Compatibility

Modular design allows required components to be added to the system to provide the ability to wash Jumbo sized glass plates.

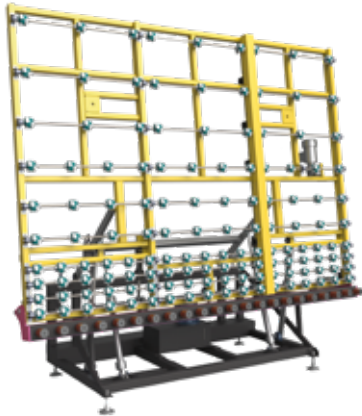
- ✓ Integration with following processes (*communication and speed synchronization*)
- ✓ Washing brushes automatic start-stop feature
- ✓ Specially designed low-energy and low-sound-level drying fan cabinet
- ✓ On-demand capacity increase ability

Optional Features

Opt. .DFT
Additional Dust Filter
& Water Tank

Opt. SCF
Automatic Water Filter (Self
Cleaning)

Opt. SSB
Stainless Steel
Outer Body

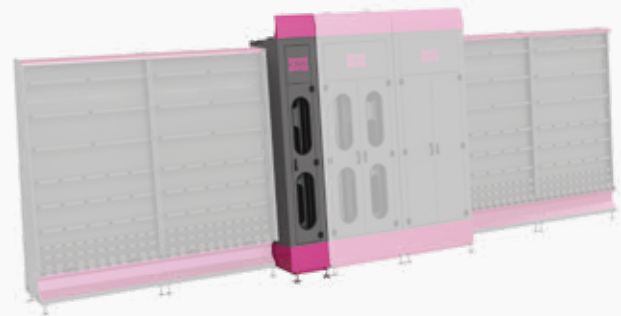


Opt. Tilting Table

Transfers glass sheets from vertical processes to horizontal processes

Opt. GPW Pre- Washing

Optimum cleaning can be achieved thanks to the pre-washing system developed to obtain fast and perfect results in the washing process.



Opt. BSS Brush Speed Synchronization

Sensitive glass washing results can be achieved in Low-E coated plates with the adjustable washing brush speed.

+ Valid for 4.20 and 4.30 versions.

Opt. RAF Remote Access

Remote access feature provides advanced online assistance and troubleshooting

+ This feature is standard when PPL lines get combined with VGW 4.20 and VGW 4.30 models.













Opt. 8 Glass Conveying Height 650 Mm (± 50)

- ✦ All in One Solution
- ✦ Easy Adaptation and Multi Functions



- ★ Glass Thickness : Min. 3 mm
- ★ Min. Glass Dimension: 350x170 mm

Models & Sizes

	Double Glazed Units	Opt 3: Triple Glass	Opt. 4: Quadraple Glass	Opt.FS: Step Glass	Panel Press	Max. IG Thickness	Conveyor Type
PPL4.1			-		Hydraulic (Opt. Servo)	60 mm	Roller
PPL4.2			-		Hydraulic (Opt. Servo)	60 mm	Belt
PPL4.3					Servo	60 mm (Opt. 4 for 100 mm)	Belt

**Visuals may change*

PPL		Glass Width (W)			
		2000	2500	2800	3300
Glass Length (L)	3000	3020	3025	3028	
	4000	4020	4025	4028	4033
	5000	5020	5025	5028	5033
	Jumbo	XL20	XL25	XL28	XL33

System Configuration

PPL4.0 Serie is designed for homogenous pressing process in order to produce high-capacity insulated glasses. PPL4.0 Serie is configurable according to your preferences and needs.

A- Assembly Conveyor



Assembly conveyor is designed to place spacer frames on the clean glass coming from washing unit.

- + Adjustable Side and bottom guide
- + Lighting

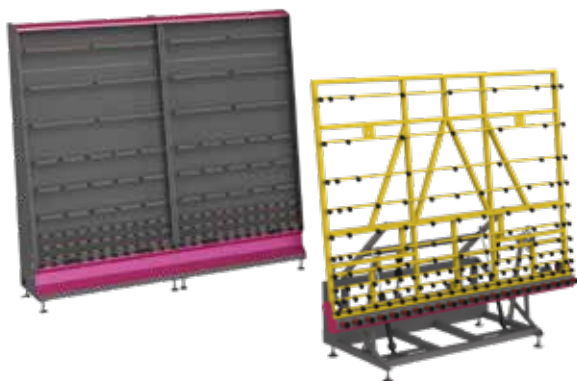
B- Pressing Unit

Pressing unit is a product of technology, experience and industry experts coming together. The system can be configured according to your present and future needs.

- + Modular Chassis and Functions
- + Strong and Sturdy Chassis
- + Precise pressing from 4 points
- + Hydraulic / Servo front panel drive system
- + High speed automatic vacuum system



C- Press Output



The Press Output is designed to transfer the pressed insulated glass unit for secondary sealing application.

- + Configurable
- + Communication protocol that enables synchronization with consecutive systems

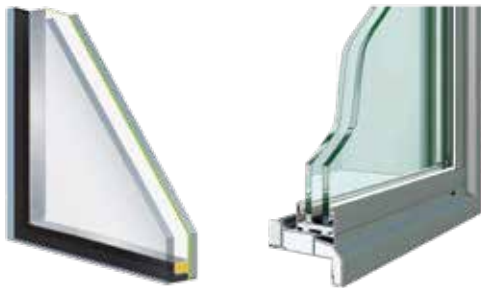
Opt. : Tilting Table

Key Features

✓ **Low-E Glass Pressing**

✓ **Modular Infrastructure**

✓ **Sensitive 4 Point Pressing**



✓ **Straight and Shaped Glass Pressing**

Straight and shaped glass pressing from CMS Shape Library can be performed optimally.

✓ **Recipe Management**

Save your datas and settings



✓ **Operator Panel**

Take control under favor of user friendly operator panel



✓ **Remote Access**

Remote access feature provides advanced online assistance and troubleshooting



✓ **Jumbo / Tandem Line Compatibility**

Compatible to be integrated with multiple pressing units to press jumbo sized insulated glass units in single operation. This compatibility allows you to upgrade your machine to tandem/jumbo pressing line any time with low costs.

(Servo Pressing Option is Required for compatibility)



✓ Modular infrastructure that will provide you the solution you are looking for with its versions and options.

✓ Possibility to increase your production capacity at minimum cost in the future thanks to the smart modular system

✓ Minimum transportation cost

Optional Features

✓ Opt. 1 Press Inlet

Easiest way to prevent operator related delays and increase efficiency

✓ Opt. 2 Tilting Table

Suitable to transfer insulated glass unit to sealing process. Vertical unit tilted down to horizontal position and can be moved without an effort.

✓ Opt. Spp – Servo Press Front Panel

Servo front panel drive system provides precise pressing by applying different pressure to glasses of different thickness and size.

- + Automatic Pressing Pressure Setting
- + Automatic Pressing Time Setting

Available as standard in PPL4.3 version



✓ Opt. G Gas Filling System

The system is equipped with software infrastructure (mathematical model) and equipment that provides the best gas filling performance at high speed. It provides minimum gas consumption with gas filling application from the bottom edge.

- + Smart Functions
- + Mathematical Flow Control Model
- + Glass Height Measurement
- + Glass Length Measurement
- + Narrowing the Press Area
- + Spacer And Glass Thickness Measurement

Ops.SPP servo front panel drive comes together.

✓ Opt. S Step Glass (Structural Glass) Function

Developed using precisely positionable mechanisms for safe and stable pressing of facade glass

- + Precise Positioning
- + Strong Mechanical Structure
- + BE, LE, RE, UE: Max: 150 mm

