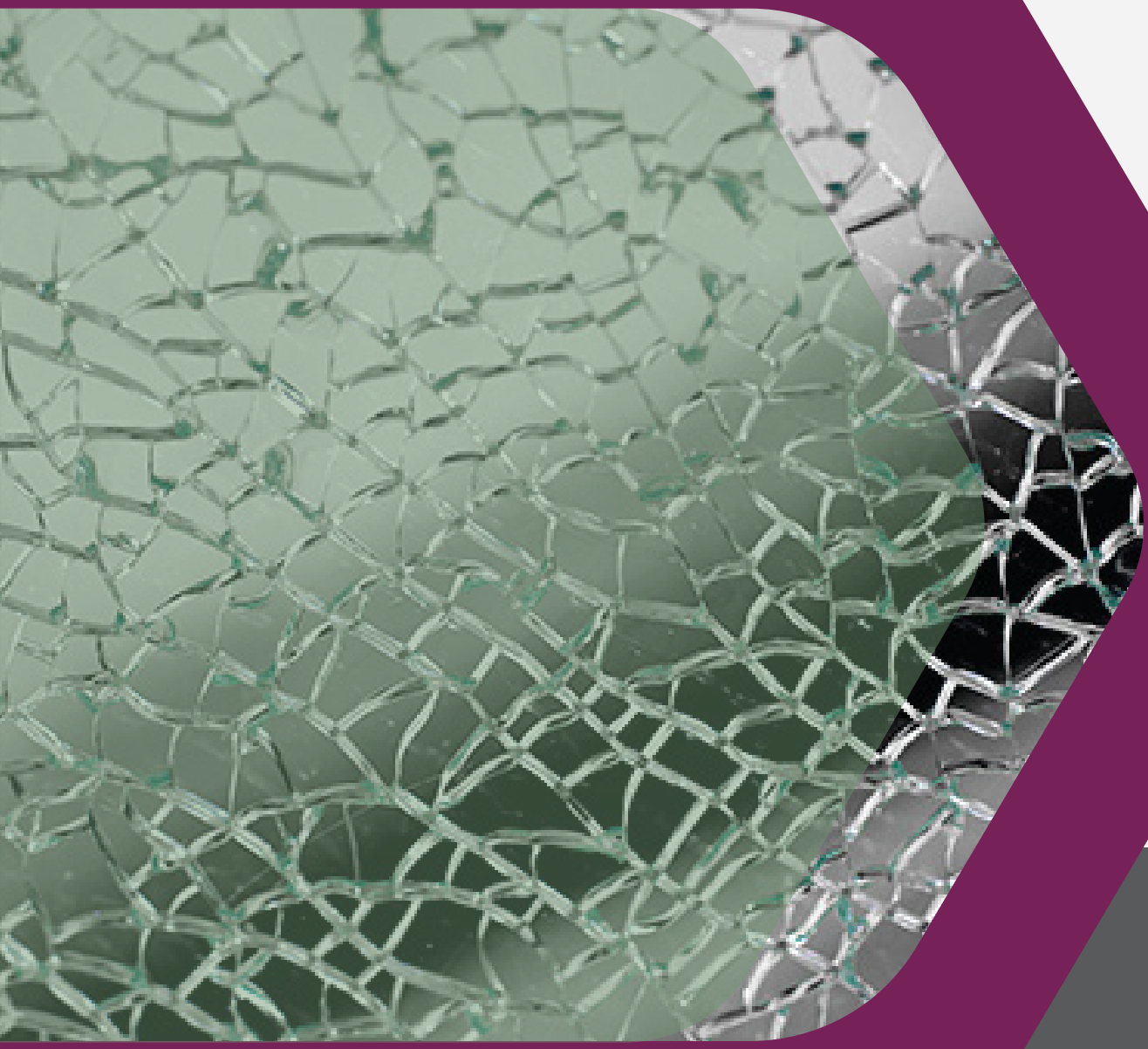
CMS

GLASS MACHINERY

Glass Tempering Furnaces

Laminated Glass Production Lines



We look to the future

ABOUT US

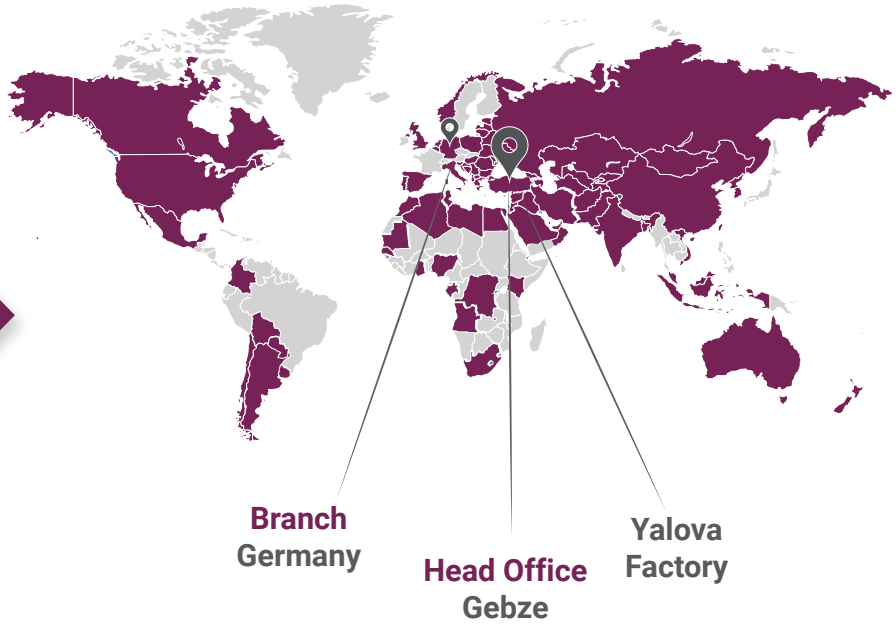
CMS Glass Machinery was founded in 1995 in Istanbul and has become the first major company in Turkey producing flat glass processing equipment and technologies. Today, due to the technology and innovation studies performed in CMS R&D Center, CMS has become one of the unique global corporations that is able to build a whole glass processing facility on its own, through 30 main products and over 200 derivatives.

While being a domestic leading company in its own field, CMS has also become a global brand with 80% export rate. CMS has created solutions for more than 10.000 customers in 127 countries with more than 15.000 machines supplied and has become one of the key vendors leading the global glass processing market.

CMS has achieved to be listed along with the top global keyrole player companies according to the surveys conducted by international organizations. CMS Glass Machinery is Counted among the most reputable manufacturers in the market with both its technical operation departments suchas Sales, R&D Center, Production, After Sales Services and its corporate infrastructure together with a 26 years of industrial processing know-how.

- 6 Continents
- +125 Countries
- +15.000 Machines
- +10.000 Customers
- 80% Export Rate
- +30 Main Products
- +200 Derivatives

We look to the future



Glass Tempering Furnaces 3-4

Laminated Glass Production Lines 7-8

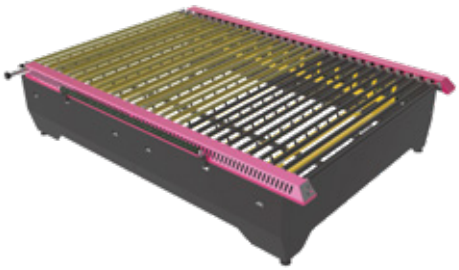
FGTF Series

Glass Tempering Furnaces

In addition to its functional features, it has elegance look and stylish design that suits to your company. CMS glass tempering furnaces are designed to temper cut and processed flat glass, reflective glass, colored glass, hard-coated low-E glass or soft coated Low-E glass at maximum speed and quality.

- Low-e Glass Tempering (Opt.)
- Double Belt Drive
- Emergency Unloading System
- Heating Zones Control
- Raising The Top Of The Oven For Service
- Automatic Blower Positioning
- Order Management
- PLC Controlled System
- Remote Access
- Bending (Opt.)
- Economy Cooling (Opt.) (From 8 mm Thickness)
- Turbo Cooling Mode (Opt.) (Full Load For 4mm)
- Quick Profile Reconfiguration
- Shards Tank
- High Temperature Protection
- Standby Mode

A- Inlet / Outlet Conveyors



It is designed for feeding and unloading the glass ergonomically.

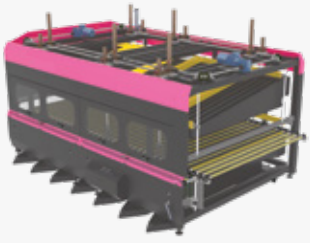
- Loading and unloading table that can get up and down in the chassis
- Idle side rolls on both sides for easy loading and unloading of large size glasses

B- Heating Furnace

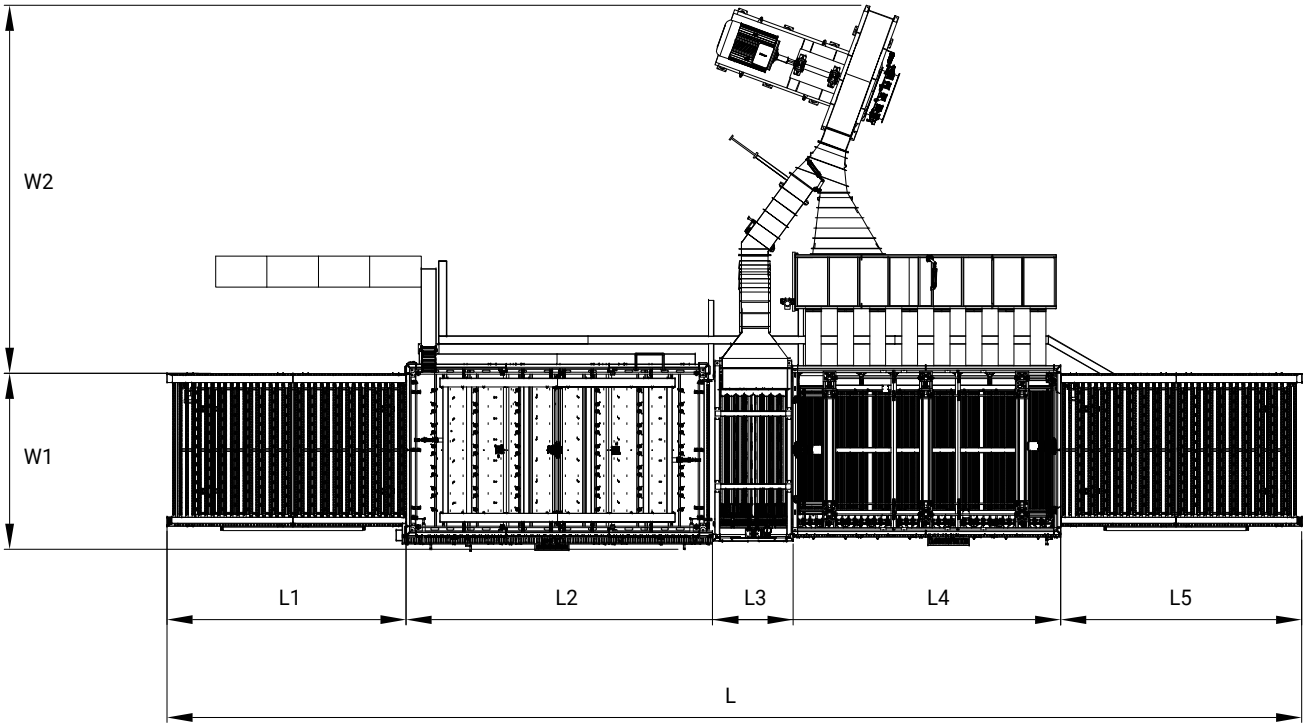
The heating furnace is produced by CMS machinery experts using high quality insulation materials and precise workmanship. Tempering quality is increased with rigid body and homogeneous heating.

C- Cooling System & Collector / Blower Group

It is designed to provide excellent flatness and transparency in flat glasses. Blower and Collector group can be customized according to your factory area.



Models & Sizes



FGTF	Glass Size		Furnace Size						
	max. W x L	min. W x L	W1	W2	L1	L2	L3 (Opt.)	L4	L5
1630	1600x3000	260x100	2700	5100	3450	4620	1720	4000	3450
2236	2200x3660	300x100	3130	5800	4050	5500	1720	4600	4050
2436	2440x3660	300x100	3600	5800	4050	5500	1720	4600	4050
2442	2440x4200	300x100	3600	5800	4700	6050	1720	5200	4700

(Blower and the collector group can be configured according to production conditions.) **Measurement units - mm.*

Technical Data

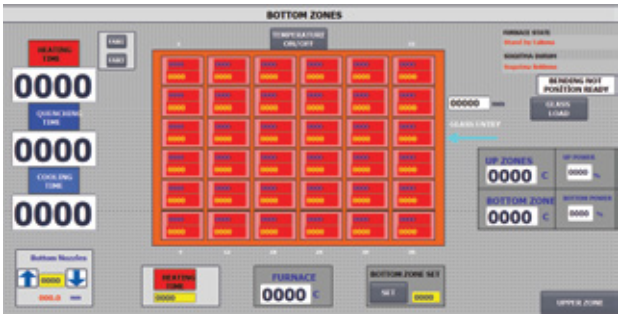
	FGTF1630	FGTF2236	FGTF2436	FGTF2442
Min. Flat Glass Size	1600×3000 mm	2200×3660 mm	2440×3660 mm	2440×4200 mm
Max. Flat Glass Size	100×300 mm	100×300 mm	100×300 mm	100×300 mm
Flat Glass Thickness	4-19 mm	4-19 mm	4-19 mm	4-19 mm
Bended Glass Thickness	5-12 mm	5-12 mm	5-12 mm	5-12 mm
Min. Bended Glass Size	150x350 mm	150x350 mm	150x350 mm	150x350 mm
Max. Bended Glass Size	*Please contact to your customer representative.*			

FGTF Series

Key Features

The main functions and features included as standard in our machines are structured to respond quickly and effectively to user needs.

- **Balanced Kevlar Coiled Roll Structure**
- **High Energy Savings**
- **Automatic Length Measuring and Swing Feature**



Regional Temperature Control System
(Automatic heating recipe according to glass thickness)

In minimized heat zones, homogeneous heating is provided by the heating and heat control system infrastructure. With CMS software technologies and infrastructures, heating is controlled parametrically depending on the recipe.

Recipe Management

Save your data and settings

Operator Panel

Thanks to the user-friendly operator panel, everything is under your control

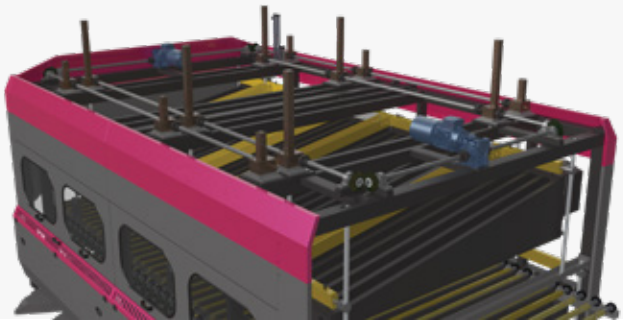
- PC+PLC Control System
- Easy to use with multi language support and user-friendly interface,
- The ability to manually control all functions,
- Ability to follow alarm alerts from operator panel,

Remote Access

Remote access feature provides advanced online assistance and troubleshooting

Automatic Cooling Nozzle Positioning

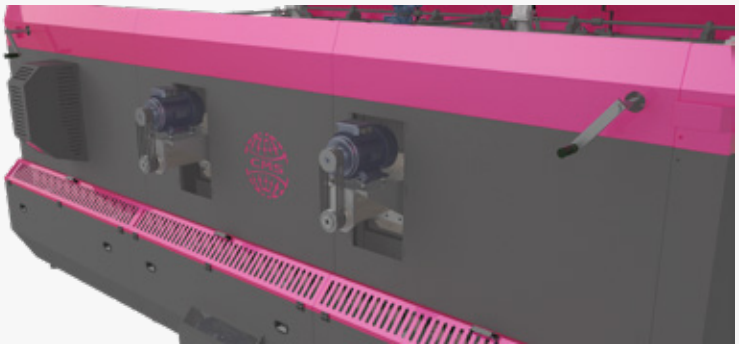
Cooling unit top nozzle is positioned automatically depending on glass thickness. In order to prevent glass breaks and surface fluctuations, the Screw Jack (Trapezoidal Spindle) is positioned precisely and reduced due to positioning errors compared to chain systems



- Manual roll drive arm *(To discharge the glass inside the heating furnace in case of sudden power cuts)*
- Ease of maintenance *(Top Units can be lifted up to 500mm with Screw Jack Mechanism)*
- Possibility of tempering glass thinner than 4 mm with a single blower with half charge

Opt. TC - Top Convectional Glass Tempering Feature

Has been developed to temper soft coated (Low-E 0.02) glasses at maximum quality and speed. Specially designed blower technology in the upper heating group gains convectional heating capability to the furnace.



Opt. ASB Small Cooling Blower

Energy savings are provided by the use of small blower for cooling 8 mm and above thick glasses.

Opt. AHS Auto Heating System with Timer

Automatic heating feature of the furnace according to the set date and time

Opt. FCL Full Charge Loading

Second big blower option is used to perform 4 mm glass tempering operation at full capacity.

Opt. Y - Bending Unit

Glass tempering furnace bending unit is designed for tempered glass tempering in glass tempering furnaces. The bending unit, controlled by a servo motor, can precisely bend the glasses coming out from the heatingfurnace.

Bending Glass Thickness: 4-12mm

Opt. Fan/Collector

We develop the best solution for you with our personalized designs suitable for your needs and workspace. You can get information about detailed engineering studies with your sales representative when ordering.

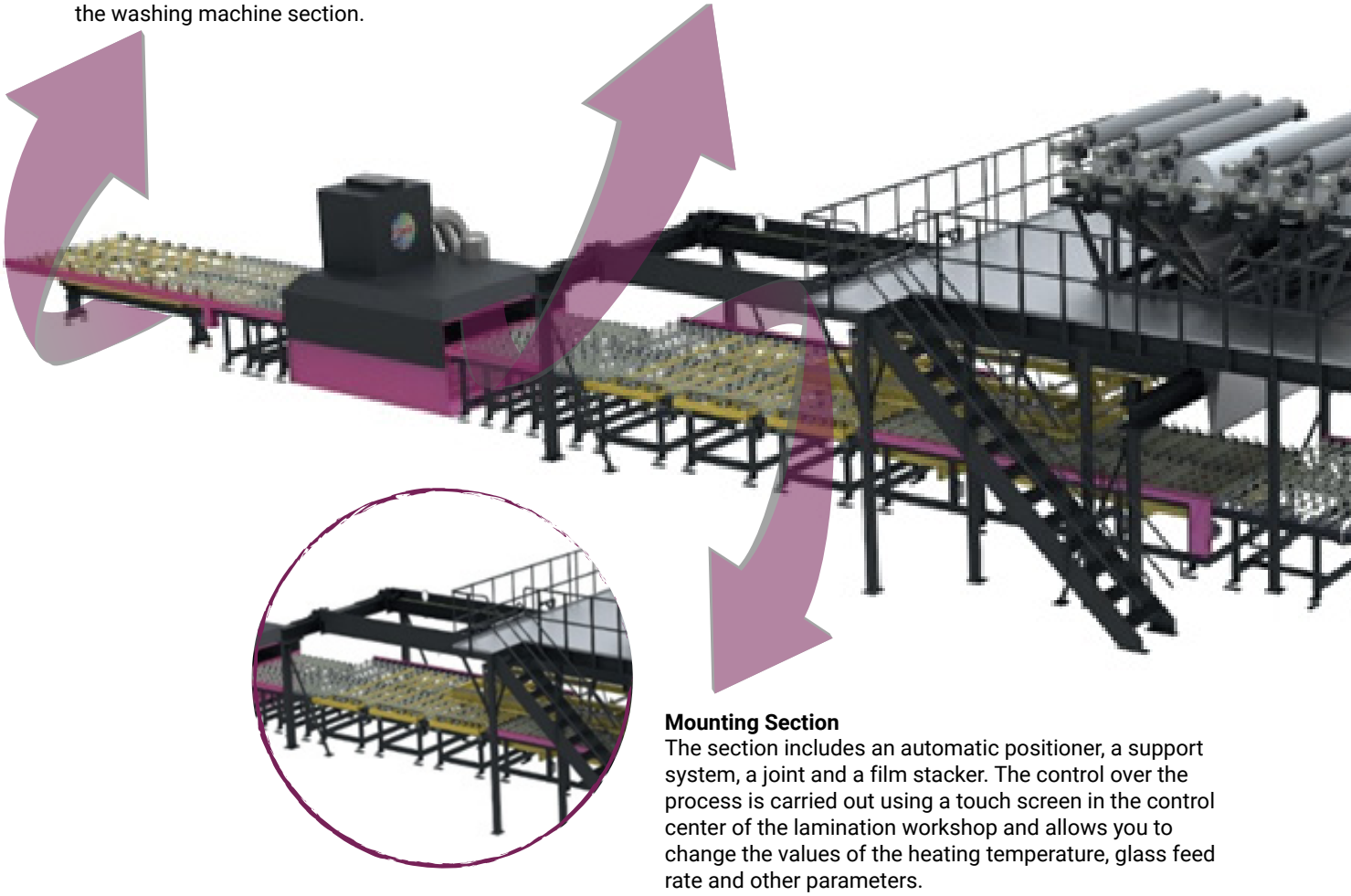
LGPL Series

Laminated Glass Production Line

Laminated glass production line is designed to produce laminated glass by choice of dimensions. The line is integrated with loading and unloading tables, horizontal glass washing machine, assembly station, pressing and convectional heating sections. By its PVB roller system the line can store and use different thickness and colors of PVB foils. Manual PVB application on the glass and manual PVB trimming complete features of this configuration

Hydraulic Rotary Tilting Table For Loading
This machine is special equipment for loading big glass sheets easily to the lamination Line. It is equipped with hydraulic cylinders and with these cylinders the table gets to vertical position and the glass sheet is loaded in vertical position easily. The movement of the table is used only at big sheets and for small sheets it is not needed to use the tilting function. The horizontal placed conveyor rollers are moving the sheets automatically to the washing machine section.

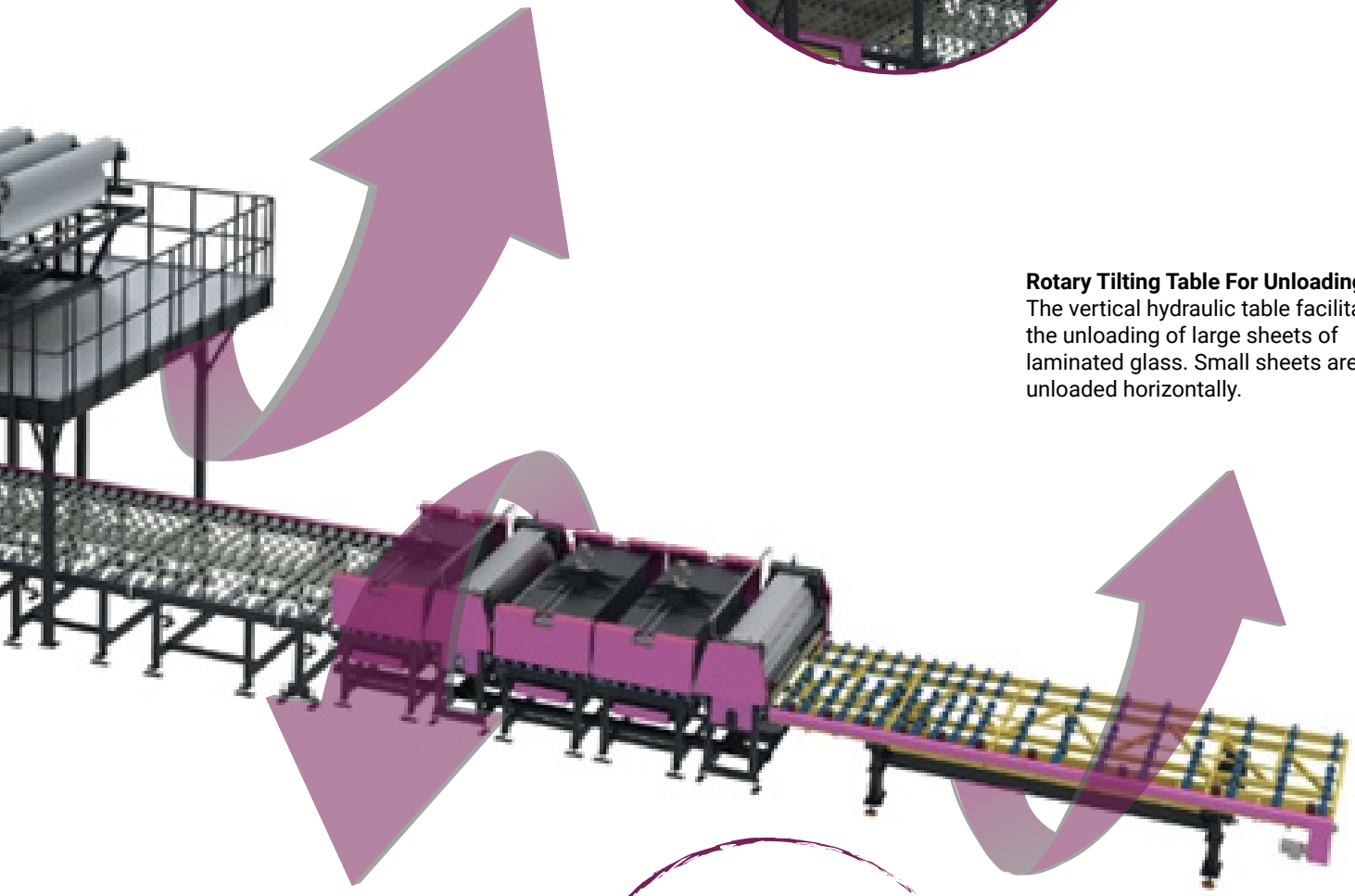
Horizontal Glass Washing Machine
The structure of the washing machine is located in a horizontaly and includes an inlet section, a washer, an outlet and a blower system. The glass is transported using rollers made of a special rubber material. Excellent cleaning performance is ensured by soft brushes, water jet nozzles and a powerful dryer.



Mounting Section
The section includes an automatic positioner, a support system, a joint and a film stacker. The control over the process is carried out using a touch screen in the control center of the lamination workshop and allows you to change the values of the heating temperature, glass feed rate and other parameters.

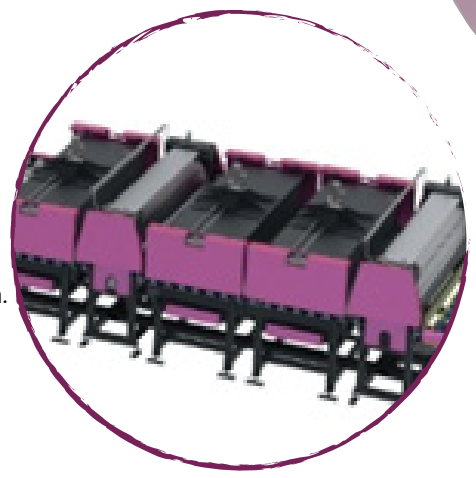
- Loading And Unloading Conveyor
- Low-E Laminated Glass Production
- Low-E Laminated Glass Production
- Autoclave (Opt.)
- Mounting Section
- Convection Heating
- Convectional Pre-Heating
- Pre-pressing Machine
- PVB Roller Mechanism
- Main Press

PVB Platform
With motor drive rollers PVB sistem (maximum 10 rollers) is designed to automate processes, limiting manual operator intervention (cutting PVB, trimming, etc.)



Rotary Tilting Table For Unloading
The vertical hydraulic table facilitates the unloading of large sheets of laminated glass. Small sheets are unloaded horizontally.

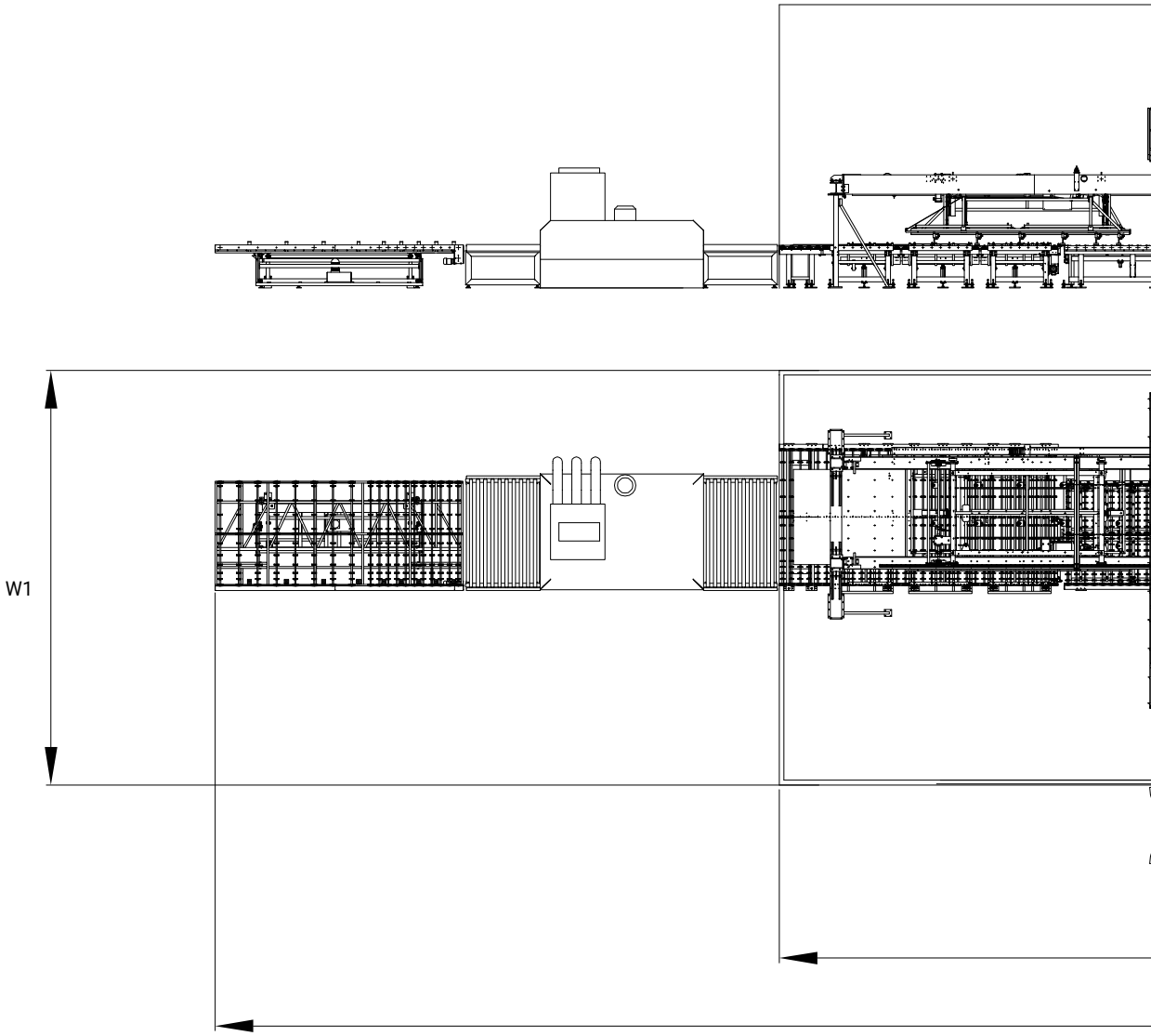
Main Pressing Machine
Optimum press pressure and uniform heating are automatically adjusted to suit different types of glass.
Infrared heaters and convection system provide high quality lamination.



LGPL Series

Laminated Glass Production Line

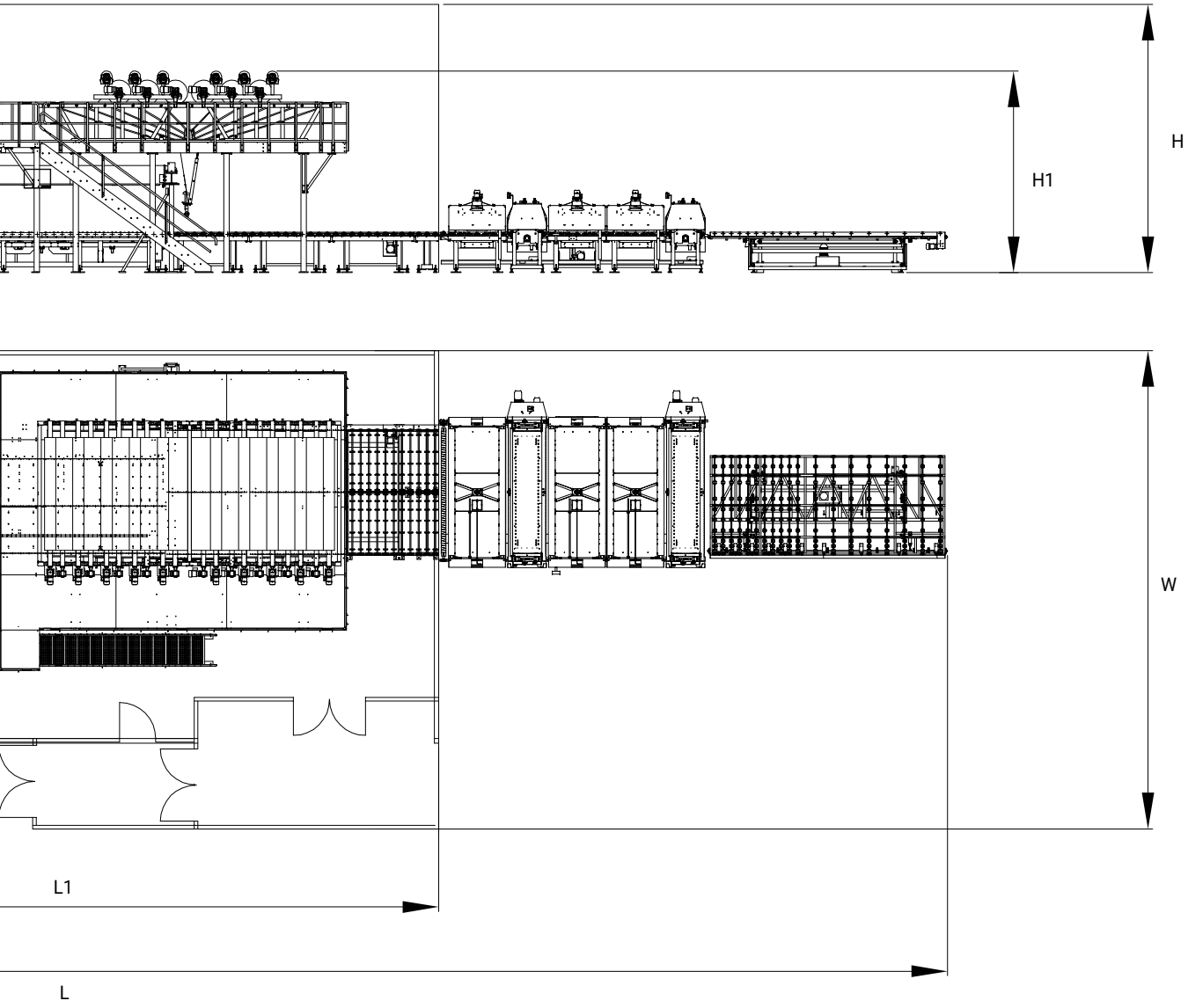
Laminated glass production line is designed for the production of laminated glass in different sizes



Models & Sizes

	L1	L2	L3	L4	L5	W1
LGPL	3450 mm	4620 mm	1720 mm	4000 mm	3450 mm	2165 mm

Please contact to your sales representative for different size requests.



Technical Data

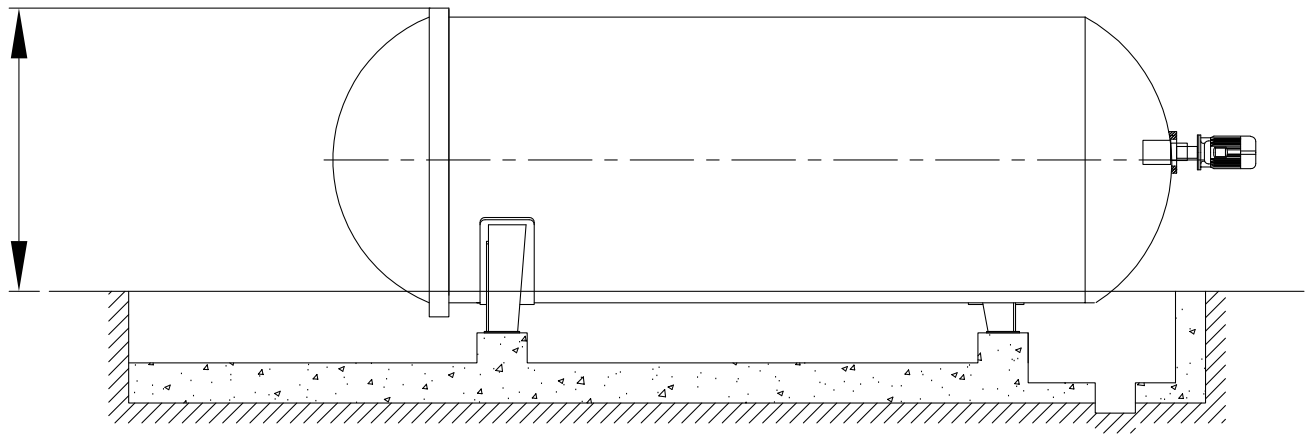
Max. Glass Size	4500×2500 mm
Min. Glass Size	250×400 mm
Sheet Glass Thickness	3-19 mm
Laminated Glass Thickness	4-80 mm
The Inner Layer	PVB
Number of Rolls PVB	6

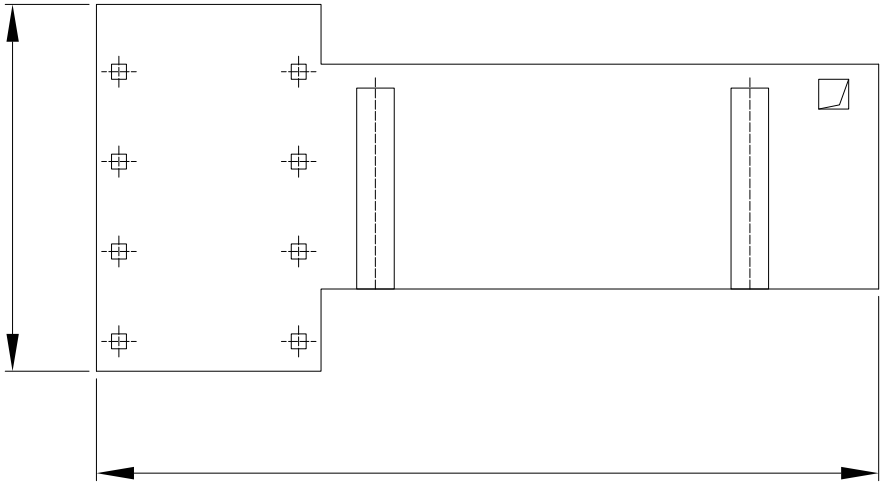
LGPL Series

Autoclave Tank

Autoclave tank allows glass to be laminated using PVB interlayers. Glass is loaded horizontally using special trays

Models & Sizes





Technical Datar

Effective inner diameter	2850 mm
Inner length	6000 mm
Max. glass size	2500x6000 mm
Pressure	1.5MPa
Max. operating pressure	1.3MPa
Pressure of Safety Valve	1.4MPa
Heat	160 °C
Max. working heating	160 °C
Work mode	Compressed Air
Distance between rails	1000 mm
General power	190 kW

Technical Service

Our After Sales Service department has the same objective as you: to achieve high and reliable performance throughout the entire life cycle of your equipment. Our global service team provides support with services and customised service products to guarantee and improve the performance of the machine. CMS Glass Machinery's service philosophy is to ensure close cooperation, efficient communication and high flexibility.

Maximum reliability and a long-term operational availability

Whether you need prompt assistance over the telephone, e-mail, remote support request, replacement of a particular component, an inspection or maintenance, our service teams act quickly and provide you with first-class support, round the clock, at any location and over the whole life-cycle of your installation. We always endeavour to keep your total cost of ownership as low as possible.

- **Personal Contact**
- **Revision**
- **Maintenance**
- **Spare Parts**
- **Remote Support**
- **Repair**
- **Field Service**
- **Training**

Maximum reliability and a long-term operational availability

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Research & Development Center

We continously design and develop our Innovative glass machines in our Research & Development center. Our aim and goal is to use new ideas to create new value-added solutions that are perfectly tailored to the current and future market needs of the glass industry.

THE FIRST AND ONLY APPROVED R&D CENTER OF TURKEY'S GLASS MACHINERY INDUSTRY

Our innovations that we have developed for domestic and international glass industry market set new benchmarks in modern glass companies, both in the development of new glass machines for glass processing companies and also in the improvement of existing glass processing companies

Customer Focused Research & Development

The success we have achieved since the day we were founded and our preference by glass processing factories have been the most distinguishing feature. With the motivation of developing many glass machines that have become a reference point in the glass industry in their segments, our engineers continue to produce value-added outputs in the sector. We produce innovative solutions by blending the needs and demands of the sector with science and technology.

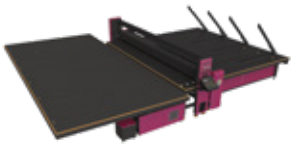
Product Range

Glass Cutting Machines

Electromagnetic Linear Motor
Driven Automatic Glass Cutting Line

Glass Cutting Table with Integrated
Glass Loading Arms

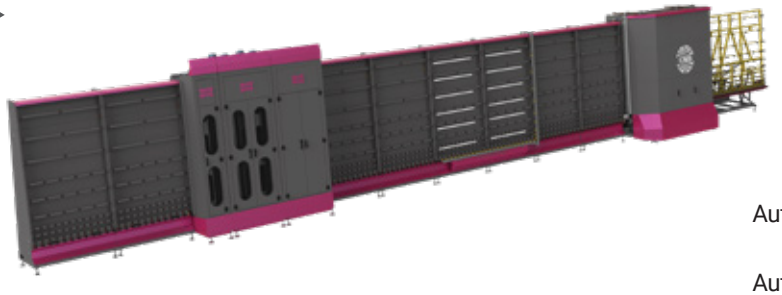
Automatic Glass
Cutting Table



Laminated Glass
Cutting Line

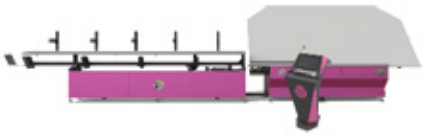
Automatic Glass
Loading Robot

Glass Cutting Table with
Integrated Belt



Glass Washing Machines & Lines
Glass Washing and Combining Line
with Roller Press
Automatic Glass Washing and Combining Line
with Hydraulic Panel Press
Automatic Glass Washing and Combining Line
with Servo Driven Argon Gas Filling Panel Press

Spacer Processing & Auxiliary Machines



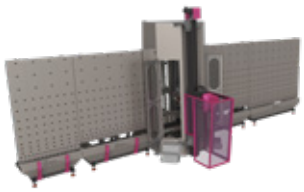
Automatic Spacer
Bending Machine

Automatic Desiccant
Filling Machine

Butyl Extruder

Glass Processing Machines

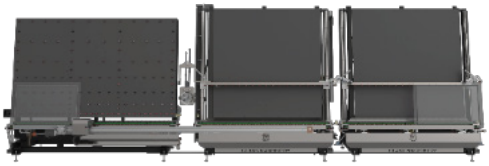
Glass Double Edger
Machines & Lines



CNC Vertical
Glass Arrising Machine

CNC Vertical Glass Arrising
Machine With Diamond Tool

Sealing Robots & Extruders



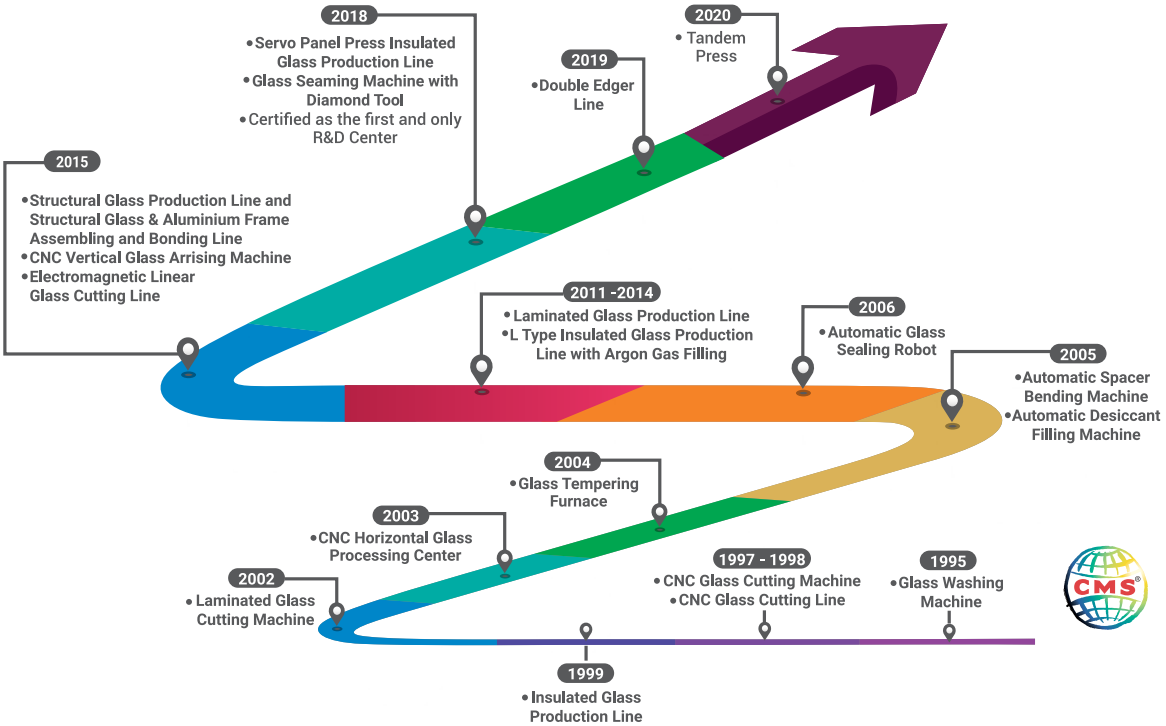
Servo Motor Driven Automatic Glass Sealing Robot

Glass Sealing Extruder

Rotary Table

Rotary Table

Hotmelt Extruder



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