

**EPB-L™**  
**EPB-XL™**

## AUTOMOTIVE EPB-L™ | EPB-XL™

### External Press Bending System

Glasstech's EPB-L system is an innovative, highly versatile glass bending system designed for the production of automotive laminated windshields and sunroofs. The system satisfies the automotive OEM demand for tighter surface tolerances with superior optical quality, while also meeting the glass processor's need for greater productivity, economical tooling and energy conservation.

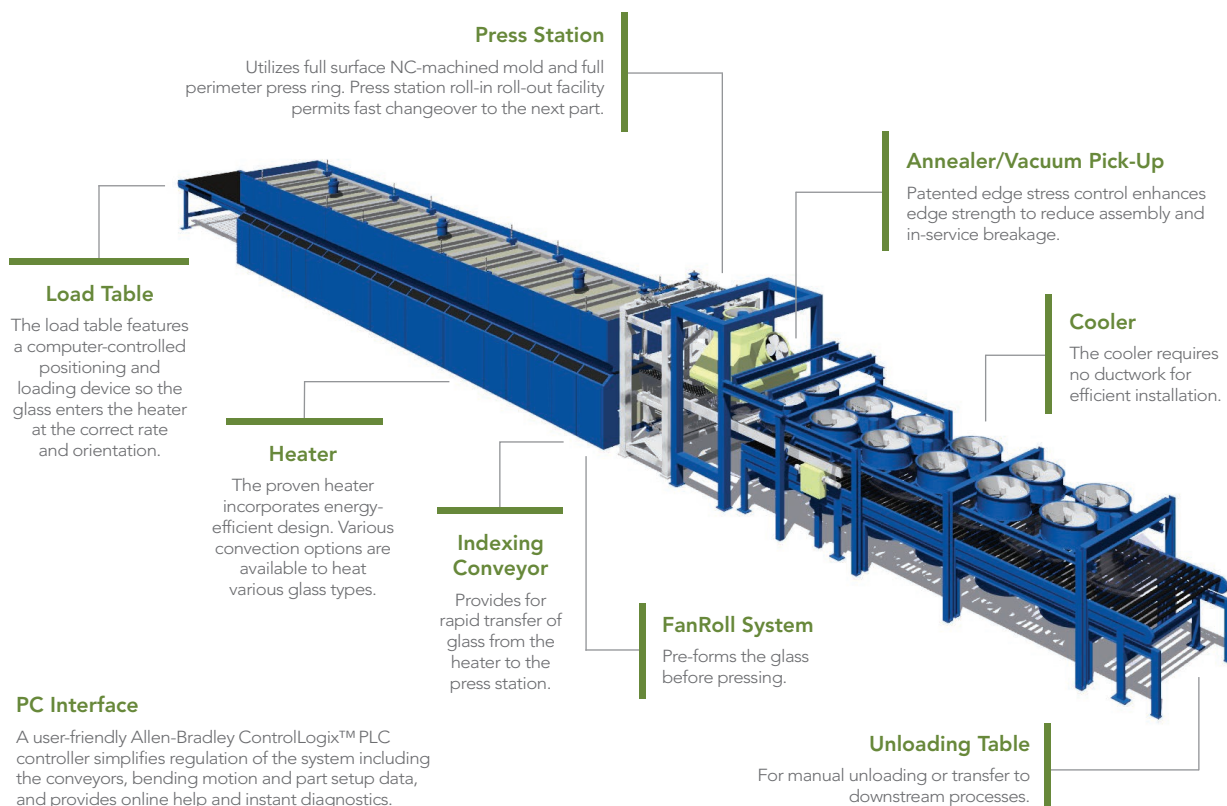
Designed as an expandable system, the production capabilities of the EPB-L can easily meet production needs. Production capabilities vary, with standard, intermediate and high capacity configurations available. Additionally, coated glass configurations are available to meet the increasing demand for processing high performance coatings. In the highest capacity configuration, the EPB-L achieves a cycle time of 9.0 seconds for glass singles. This enables the two parts required for a windshield to be produced every 18 seconds.

The system is available in a standard loading area of 1220mm x 1828mm (48" x 72") or an expanded loading area of 1600mm x 2134mm (63" x 84").

The Glasstech EPB-L utilizes patented features to provide high capability and quality parts. For example, the final heating section is equipped with a FanRoll system that is used to pre-form the glass before it arrives in the pressing station. This provides an increase in forming capability. The EPB-L system also utilizes Glasstech's patented edge stress control technology, which increases edge strength while maintaining inner band tension. This feature helps reduce installation and in-service breakage.

### Production Capabilities

- Bent and annealed windshields, backlites and sunroofs suitable for lamination
- Compound, complex-shaped and cylindrical parts
- A single forming tool-set ensures high statistical repeatability
- Total energy consumption is significantly lower than conventional bending systems because the system only heats glass, instead of glass and bending rings
- In the EPB-XL configuration, capable of producing large panorama windshields and sunroofs



## AUTOMOTIVE EPB-L™ | EPB-XL™ TECHNICAL FEATURES

Product Size and Forming Capability									
	Size					Depth of Bend		Minimum Radius of Curvature	
	Glass Thickness	Minimum Glass Size Length x Width		Maximum Glass Size Length x Width					
	(mm)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
EPB-L	1.6 – 2.1	890 x 500	35 x 20	1220 x 1828	48 x 72	165	6.5	600	23.6
EPB-XL	1.6 – 2.1	890 x 500	35 x 20	1600 x 2134	63 x 84	165	6.5	600	23.6

### Load Table Positioner

The load table incorporates a computer-controlled servo positioning system which ensures correct positioning of inner or outer glass.

### Indexing Conveyor System

The final heating section is equipped with an indexing conveyor and FanRoll system, which allows the preshaped glass to be rapidly transferred to the pressing station, thereby minimizing the heat loss and improving the optical quality of the part.

### Press Station

The press station utilizes precision, NC-machined tooling that is maintained at a constant temperature ensuring consistent and repeatable product quality. The tooling is also designed with Quick Change features to reduce part changeover times. As an optional feature, the system can be equipped with a second press station that is located and prepared "offline."

### Annealer/Vacuum Pick-Up

The patented edge stress control system provides for edge compression that is three times higher than traditional methods while maintaining traditional inner band tension.

Example System Configurations								
	Heater Length		Glass Thickness					
			1.6mm		1.8mm		2.1mm	
			Green	Coated*	Green	Coated*	Green	Coated*
	(m)	(ft)	(sec)**	(sec)**	(sec)**	(sec)**	(sec)**	(sec)**
EPB-L Standard Capacity	21	68.9	9	16.9	9.8	19.1	11.5	22.4
EPB-L Intermediate Capacity	26.4	86.7	9	12.4	9	14	9	16.4
EPB-L High Capacity	33.6	110.7	9	9.1	9	10.3	9	12
EPB-L Coated High Capacity	39.8	128.7	9	9	9	9	9	10
EPB-XL Standard Capacity	21.2	69.5	9.5	17.2	10	19.4	11.7	22.7
EPB-XL Intermediate Capacity	26.7	87.5	9.5	12.5	9.5	14.1	9.5	16.6
EPB-XL High Capacity	34	111.5	9.5	9.5	9.5	10.4	9.5	12.1
EPB-XL Coated High Capacity	39.5	129.5	9.5	9.5	9.5	9.5	9.5	10.1

\*Requires smart convection option

\*\*1m (39.3") tall part size, taller parts have extended cycle time

Floor Space Requirements										
	Heater Length		Total Length		Total Width 1 Press		Total Width 2 Presses		Height	
	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)
	EPB-L Standard Capacity	21	68.9	43.1	141.5	12.2	39.9	18	59	5.6
EPB-L Intermediate Capacity	26.4	86.7	51.7	169.5	12.2	39.9	18	59	5.6	18.4
EPB-L High Capacity	33.8	110.7	59	193.5	12.2	39.9	18	59	5.6	18.4
EPB-L Coated High Capacity	39.2	128.7	64.5	211.5	12.2	39.9	18	59	5.6	18.4
EPB-XL Standard Capacity	21.2	69.5	46.2	151.5	16.8	55	22.2	73	5.6	18.4
EPB-XL Intermediate Capacity	26.7	87.5	54.7	179.5	16.8	55	22.2	73	5.6	18.4
EPB-XL High Capacity	34	111.5	62	203.5	16.8	55	22.2	73	5.6	18.4
EPB-XL Coated High Capacity	39.5	129.5	67.5	221.5	16.8	55	22.2	73	5.6	18.4

Installed Electric Power					
	Heating	Annealing	Cooling	Drives	Total
	(kW)	(kW)	(kW)	(kW)	(kW)
EPB-L Standard Capacity	2200	15	54	60	2329
EPB-L Intermediate Capacity	2690	15	54	60	2819
EPB-L High Capacity	3350	15	67	60	3492
EPB-L Coated High Capacity	3840	15	67	60	3982
EPB-XL Standard Capacity	2660	20	63	65	2808
EPB-XL Intermediate Capacity	3230	20	63	65	3378
EPB-XL High Capacity	4000	20	78	65	4163
EPB-XL Coated High Capacity	4580	20	78	65	4743

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