

520 LAM

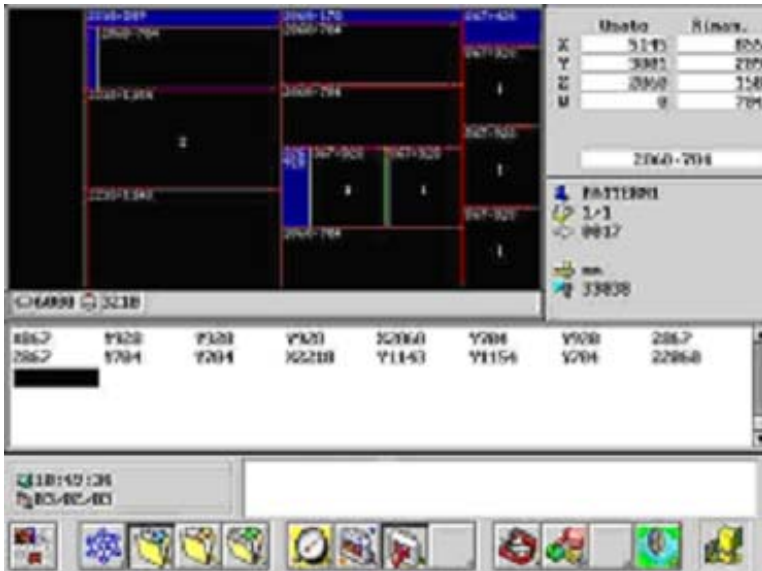
Automatic machine for cutting laminate glass



MAIN CHARACTERISTICS OF THE 520 LAM

The 520 LAM is identified by its high levels of modularity and automation.

The operator interface and the control of the axes is managed by a PC with a 17" flat screen.



The operator interface allows easy introduction of the production data and the “Supervisor” function makes it possible to display the machine status and the current machine working cycle.

The machine can be linked directly to the Bottero Job Manager network control software.

The module and work panel of the 520 LAM/46 are the control centre of Bottero technology in the laminate glass-cutting sector.

Main characteristics of the Cutting module:

Heavy duty structure of the machine frame and cutting bridges.

Aluminium is utilised for high precision and stability of moving parts.

Pair of bridges with automatic clamping system for glass sheet cutting, breakout and separating the PVB to obtain a product with a precise and splinter-free cut, as per the BOTTERO PATENT.

Use of special clamping material to enable efficient separation of the glass without the risk of damaging it or LOW-E layer.

The PVB is separated using an HP Resistance element; an infrared electrical resistance. The physical properties of the infrared rays make it possible to heat the P.V.B. without overheating the glass, thus avoiding breakages when cutting and speeding up the machine cycle.

The machine is equipped as standard with a device, known as a Laser projector developed to facilitate diagonal cutting operations.

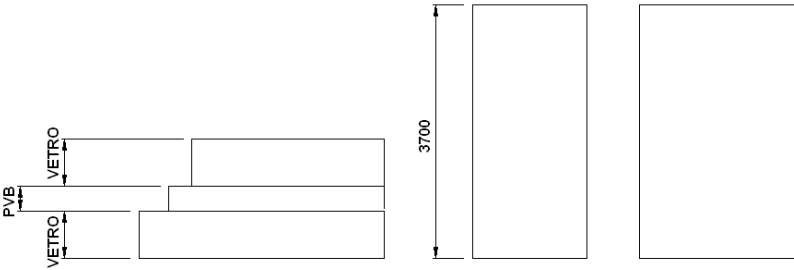
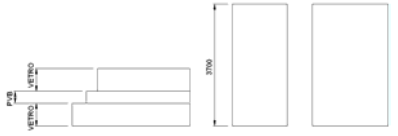
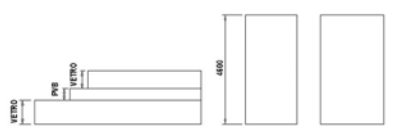
Working table:

Precision designed worktable for planarity. The quality of the felt used and the air cushion efficiency made these worktable easy to manover the glass sheet.

Frontal squaring bridge with 4 retractable LUGS, the operating surface of the machine is easily accessible by the operator to allow the squaring process.

Electric unloading arms fitted as standard, incorporated into the machine worktable.

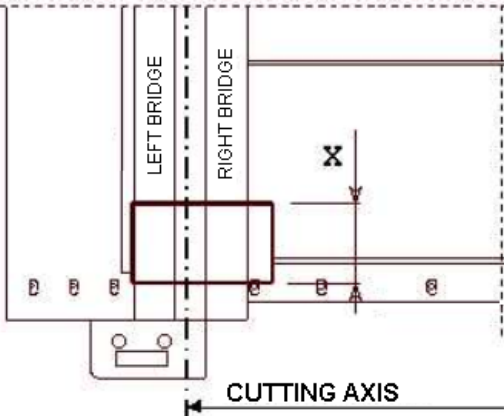
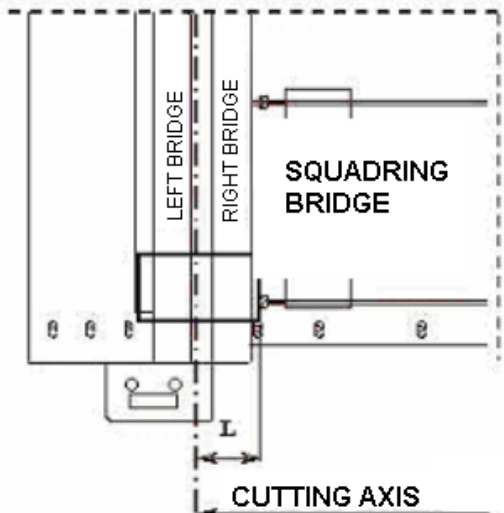
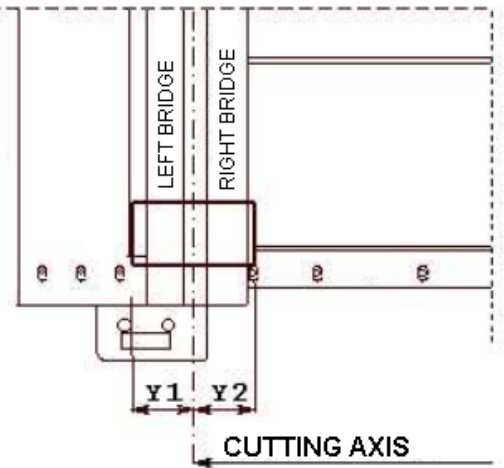
The 520LAM has a series of optional accessories which complete functionality and the range of use.

AVAILABLE OPTIONS	520LAM / 37	520LAM / 46	
“Blade” device (included)	PVB cutting with blade. The device improves considerably the cycle time for increased thickness		
Automatic cycle (option - refittable) (Minimum measurement=240mm)	Fully automatic cycle for maximum cutting length with blade of 3700 mm and for the following thickness:		
	glass	P.V.B. min	P.V.B. max
	2+2	0,38	4,56
	3+3	0,38	4,56
	4+4	0,38	4,56
	5+5	0,38	4,56
	6+6	0,76	4,56
	8+8	0,76	4,56
			
Manual cycle (included)	The maximum cutting length with blade is 3700 mm in case of manual cycle (PVB < = 4,56, glass < = 8+8 mm). 	The maximum cutting length with blade is 4600 mm in case of manual cycle (PVB < = 4,56, glass < = 8+8 mm). 	
Fast blower closure	Device for the immediate cut off of the air cushion on the work table.		
Telescopic arms	Telescopic arms equipped with pivoting wheels to support the sheet.		
Easy Mark	Device for tracing automatically and with precision the diagonal cutting references on the primitives		
Easy Deletion	Device for Low-e surface coating removal		

TECHNICAL SUMMARY			520LAM / 37		520LAM / 46	
Maximum cutting length			3700 mm		4600 mm	
Minimum cutting length			250 mm			
Maximum measurement			3210 mm			
Minimum measurement			150 mm			
Processable glass thickness	Monolithic		3 – 10 mm			
	Laminate	standard	glass	P.V.B. min	P.V.B. max	
			2+2	0,38	4,56	
			3+3	0,38	4,56	
			4+4	0,38	4,56	
			5+5	0,38	4,56	
			6+6	0,76	4,56	
			8+8	0,76	4,56	
Maximum Cutting Carriage Speed			100 m/min.			
Maximum grinding speed			60 m/min. (low-e) grinding wheel option			
Loading/unloading maximum glass weight on arms			450 Kg _ H max = 2400mm			
Time of cycles for L = 3700mm (cut, breakout, separation)			Time in seconds (at room temperature, equivalent to 18° C)			
GLASS	P.V.B.					
	0,38	0,76	1,52	4,56		
3+3	40	45	53	---		
4+4	41	48	57	---		
3+5	41	---	---	---		
5+5	45	51	59	---		
4+6	---	---	59	---		
6+6	47	53	65	---		
8+8	---	---	---	140		

The above declared performances and precision might vary with the processed float and PVB glasses quality

TECHNICAL SUMMARY

	520LAM / 37	520LAM / 46
	<p>Maximum cutting length X=3700 mm</p> <p>Minimum cutting length X=250 mm</p>	<p>Maximum cutting length X=4600 mm</p> <p>Minimum cutting length X=250 mm</p>
	<p>Maximum measurement L=3210 mm</p> <p>Minimum measurement L=150 mm</p>	
	<p>Minimum breakout</p> <p>Y1 = 150 mm</p> <p>Y2 = 150 mm</p>	
<p>Noise</p>	<p>72 dB</p>	<p>75dB</p>

CUTTING BRIDGE ACCURACY	520LAM / 37	520LAM / 46
Measurement bridge positioning	+/- 0,5 mm	
Straightness	0,5 mm	
Parallelism	1 mm	
Maximum length difference between two diagonals (Area rectangle < 2 m ²)	2 mm	

All tolerances are measured on 3 mm thick glass.

SAFETY FEATURES	520LAM / 37	520LAM / 46
Electromechanical safety	Hardware safety circuits comprising special safety modules	
Management of Moving Parts	Electromechanical hardware brake or lock (with guaranteed stroke end and opening devices)	

INSTALLATION AND CONDITIONS OF USE	520LAM / 37	520LAM / 46
Dimensions	5100 x 3900 mm	6030 x 3900 mm
Module weight	1700 Kg	3300 Kg
Panel weight	960 Kg	2300 Kg
Work Counter Height	930 mm (+/- 20 mm)	
Basic installed power	15 KVA	17 KVA
Air Consumption (Max)	120 NL/Min 200 NL/Min with Easy Deletion (Optional)	
Air characteristic	Filtering : 40 micron Dew point : + 10°C of ambient temperature	
Stocking, temperature and moisture	From -25° to +75°, Reference pressure 1 Bar 90% of relative moisture at 20° (w/o condensation) 50% of relative moisture at 40° (w/o condensation)	
Use, temperature and moisture	From +5° to +40°, Reference pressure 1Bar 90% of relative moisture at 20° (w/o condensation) 50% of relative moisture at 40° (w/o condensation)	
Power supply	Voltage: 400 V (+/- 10%), Frequency 50 Hz Compressed Air: Minimum pressure 7 Bar Dew point < 5°	

PROJECT AND PRODUCTION STANDARDS

	Standards Adopted
<p>The machine is designed, built and installed in consideration of the safety standards in force. Importance is placed upon the following aspects:</p> <ul style="list-style-type: none"> Easy use. Ergonomic work place. Easy access to organs requiring maintenance. Reliability of the machine and its components. Reduced noise levels. Power savings. 	<p>The following versions are available:</p> <p>Arrangement in compliance with the European Standard and CE mark. IEC 204/1, CELENEC EN 60204-1, CEI 44-5, Directive 2006/95/CE Directive 98/37/CE Directive 2004/108/CE</p> <p>Arrangement in compliance with American Standards, UL-CSA (OPTIONAL) marks.</p> <p>Equipment complying with the regulations and planning standard suggested by APAVE France.</p>