

Alpha

systems

Automatic Lace Cutter

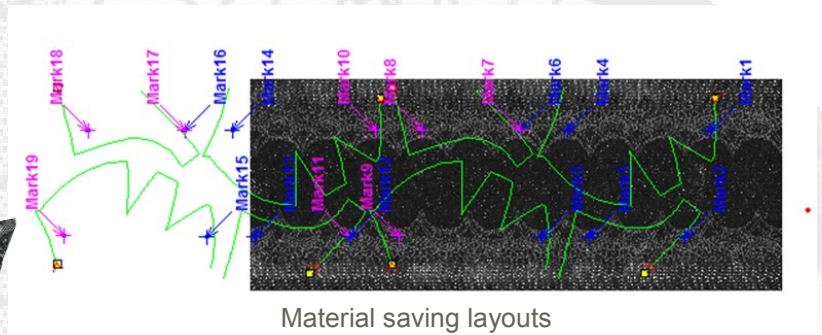
for lingerie industry



Fully automated, 100% pair matching, no shade variation issues, accurate for every panel irrespective of width and length variations in lace, no lace wastage, less manpower and higher output.

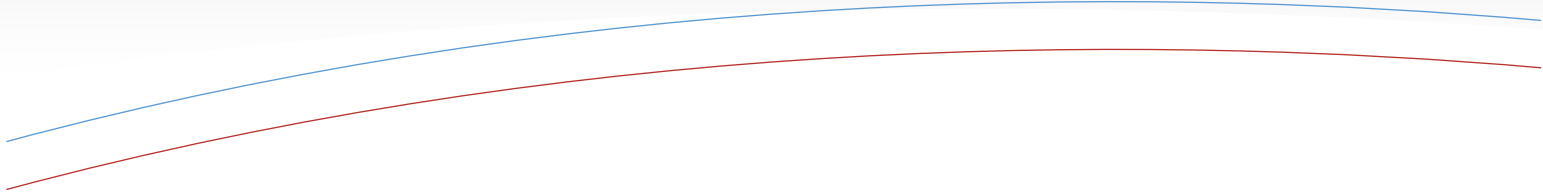


Pair Matching



Material saving layouts

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Cutting lingerie panels in lace fabric for lingerie industry is a difficult and demanding task due to the nature of lace: its' elasticity and variations in width, length and shade in the same roll.

Disadvantages of Conventional Manual Cutting:

In the conventional manual cutting, pair matching is a major challenge. In addition, there are problems of shade variations due to cutting the next pair in another layer. Manual cutting is often defective and involves rework and trimming. It winds up with a lot of material wastage due to end allowance and cutting allowance. The method is cumbersome, slow, and output is low. Added to the cost, is the need for consumables and more manpower.

Advantages of ALPHA LACE CUTTING SYSTEM:

Our solution is an innovative machine, the **ALPHA LACE CUTTING SYSTEM**, the first of its' kind, with a laser head and a specialized software to locate the priority points for each panel for accurate cutting. With the help of a camera mounted on the head, our software takes care of these variations when cutting. There are no shade-variation issues as both pairs of a lingerie piece are cut from the same layer, side by side and pair matching is done effortlessly.

Range of cutting width: Lace width from 20mm to 350mm can be processed in our standard machine.

A specialised feeder with a relaxing device feeds the lace from roll form or bale/flat form. The machine is designed in a way that the face side of the lace is always positioned towards the camera for easy identification, irrespective of the lace rolled face up or down.

Camera positioning: As the camera is fitted to the cutting head, the positioning of cut panel is accurate every time.

A built-in paper feeder feeds a layer of paper for better camera recognition of certain dark colors as and when necessary.

Perfect Pair Matching: As pairs are matched in the same layer, there is no issue of shade variation.

The **Alpha Lace Cutting System: fully automated, no wastage of expensive laces, single operator** meaning **less manpower, efficient, fast and higher output** (800-1,200 lingerie pcs per 8 hour shift).

Design & Quality of components:

High quality components ensures trouble -free running.
Compact design, safe and silent in operation.

Moreover, the same machine can be used for other applications such as cutting printed fabric, embroidery and other embellishment work.

After Sales Service:

Alpha Systems has an excellent reputation for after-sales service and support for customers locally and internationally. This is one of the many reasons customers prefer us for other range of cutting machines we offer.

Check our line of products on www.CADmachinery.com

AUTOMATIC EYE

Machine's electronic eye captures the designs of fabric lace materials and cuts the respective shapes at the exact assigned locations automatically.

AUTOMATIC ROLL FEEDING

When a window is finished processing, the machine automatically unwinds the fabric lace roll and sends to the cutting bed for continuous process. This process is monitored by sensors.

AUTOMATIC BALE FORM FEEDING

Lace in bale form also can be fed for continuous cutting.

CONVEYOR BED

After cutting one window, the cut fabric is transported by conveyor bed to the pickup zone where the user can pick up the cut pieces.

AUDIO AND VISUAL ALARM

When machine requires a personal attention, it gives an audio and visual alarm to the operator

CONTROL ALGORITHM

The acceleration / deceleration control algorithm allows for rapid and smooth operations without affecting cutting quality. Gives sharp corners even at high speed.

OPTICAL PATH

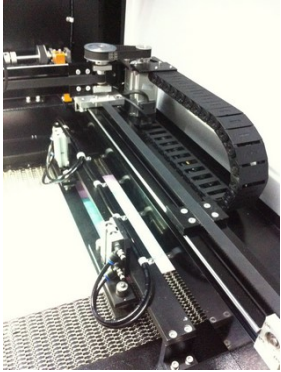
Optical path is easy to align in case of change of any optics and provides stable and reliable laser beam quality.

USER-FRIENDLY CONTROL

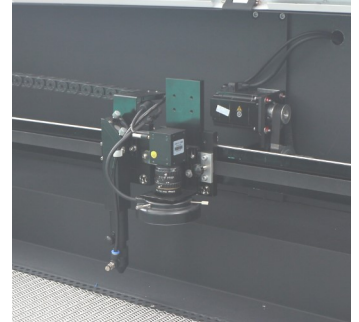
Digital Numerical control system provides simplicity of operation, with complete user-friendly functions.

AUTO VARIATION ADJUSTABLE

Lace has width and length variations. This is adjusted automatically by the intelligent software to cut every panel accurately.



Lace clamping device to prevent lace from moving when picking up cut pieces



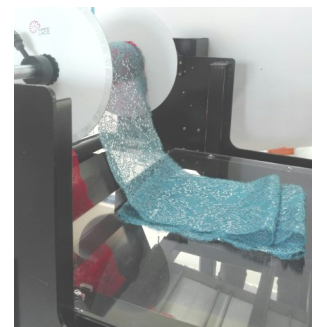
Precision & high speed recognition Camera



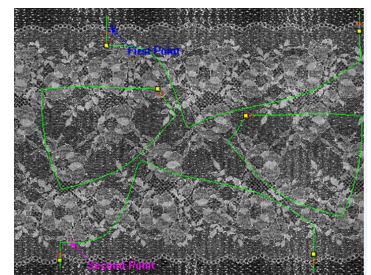
Sophisticated Lace and paper feeding system



Cut pieces Pickup zone with sorting table



Bale form feeding



Automatic identification

Specification

Model	LC6040
Work area W X L	400 x 800 mm or 400 x 1200 mm
Drive System	Belt driven
Laser Pointer (option)	Long Laser light guidance on the bed, to monitor lace flow
Max. speed	1000 mm/s
Precision	0.1mm
Laser Power	130W~150W
Laser Type	Sealed CO2 Laser wave length 10.6µm
Data format	DXF, HPGL (PLT)
Interface	LAN
Fume exhaust	Filter system or blower system
Power Supply	220V/50Hz
Operating environment	Temperature: 20°C - 35°C, Relative Humidity: 20 to 80%

Other machine sizes available on request. Machine design changes constantly due to updates.

Local Agent:

Sales and Marketing Department

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