

XGRAF
■ T E C H N O L O G Y ■

Digital Cutting Machine Series

TPS

Established on Tradition,
Excellent on Quality.

Digital Cutting Machine X7

TPS

X7 digital cutting machine adopts independent developed professional cutting CAM software, with functions of tabletop compensation, automatic edge-finding and positioning, over cutting optimization, multi-task and multi-station cycle cutting, small vision positioning, large vision positioning, projection positioning, laser mapping positioning, cost estimation, file management, etc.

TPS cutting software supports the following file formats:

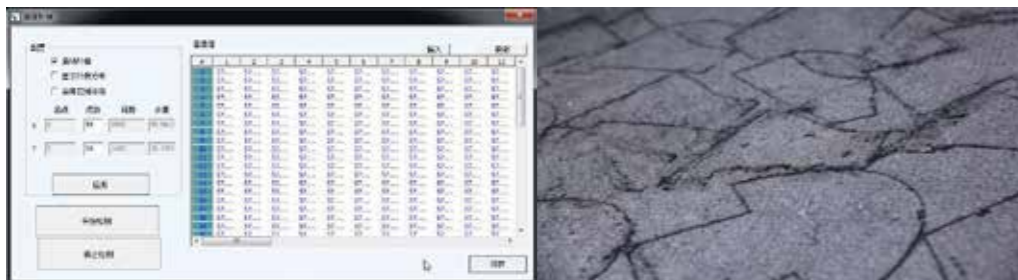


Vac-Sorb Almag alloy platform

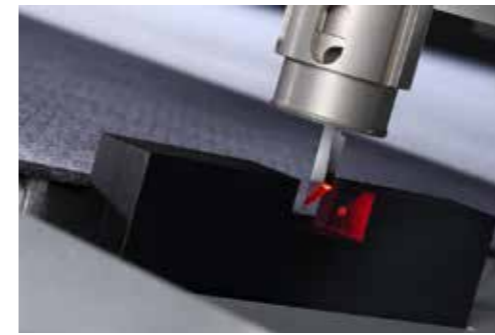
X7 digital cutting machine is designed with an advanced conveyor system to achieve continuous automatic material feeding, and the theoretical cutting length is unlimited. It adopts high-strength honeycomb aluminum adsorption tabletop with six-zone independent adsorption structure with good flatness and no deformation. It is equipped with cut-resistant 4mm thick imported felt of good permeability, good wear resistance and long service life. The machine works with a strong power vacuum pump to ensure superior adsorption during processing products.

Tabletop height compensation function

The flatness of the tabletop is detected by a high-precision distance detector, and the tabletop is corrected in real time by software to avoid the inconsistent cutting depth caused by the inconsistency between the tabletop and the tool drop, ensuring perfect cutting result.



The detection of tabletop flatness done by a high-precision height detector and the function of automatic height compensation of dropping tool protect the tabletop and felt from damage.



Fiber laser tools calibrating device

Quick and easy automatic tool calibration system: Adopt fiber laser sensor to accurately detect the tool which greatly improves the efficiency of calibration.



Safety anti-collision mechanism

TPS digital cutting machine is equipped with a safety light curtain sensor and a mechanical anti-collision mechanism to prevent the device from damaging personnel during high-speed operation.

Automatic edge-inding positioning function

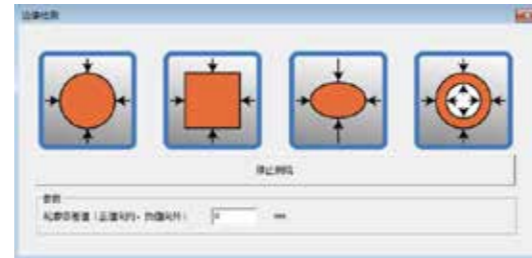
The CCD camera captures the image in real time, and the pattern deformation law is obtained by identifying registration marks, and the original contour pattern is optimized according to the deformation amount to get high accurate cutting result.

- A. Support many formats such as AI, EPS, DXF, PLT, PDF, JPG, TIF, TPS etc.
- B. Bitmap vectorization function, smoothing algorithm and mutation point modification.
- C. Recognize registration marks intelligently and distinguish the layer automatically according to the shape and the color of the graphic during importing the graphic.
- D. Shapes of registration marks such as circle, square or cross for users' choice.
- E. Precise positioning, accuracy of repeated positioning is within 0.1mm.
- F. The requirement of environment is not high, positioning can also be implemented in the case of insufficient light.



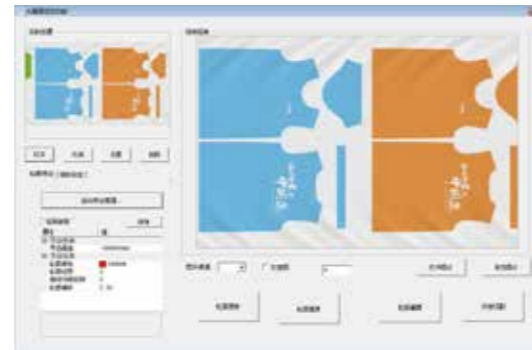
Laser mapping positioning function

Users can use the laser mapping and positioning function to map various shapes of the material, and the user can place the patterns to be processed into mapping range for precise cutting, which greatly improves the utilization of the material.



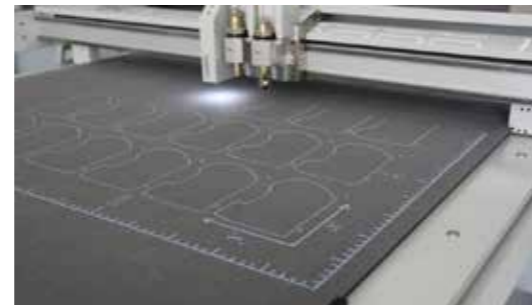
Large Vision Positioning System

Since the flexible material may be deformed by the factors such as temperature, humidity, ink, pressure, stretching, wrinkles, etc., the original document outline cannot be used to accurately cut the actual pattern, we use the function of the high-precision camera's real-time shooting and contour extraction, thus to accurately identify and extract real-time work piece image contours for precise nesting. It is especially used in advertising printing and garments industries.



Projection Positioning System

In actual cutting process, it is difficult for users to accurately align the material with the cutting pattern. This system can project the cutting pattern on the processing table with 1:1, which is convenient for users to feed and align the material. The user can also place the irregular material into the projection area for the alignment cutting, which greatly improves the utilization of the material.



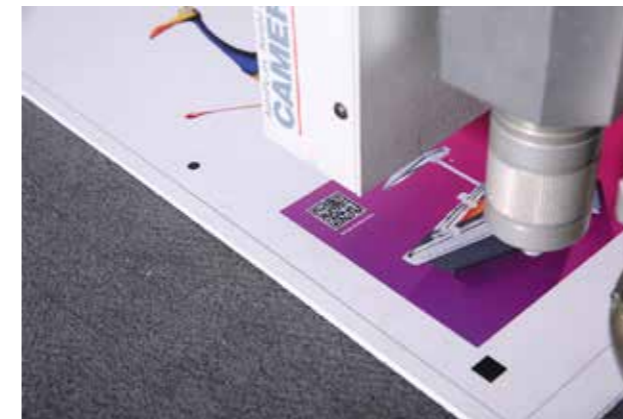
Prevent over-cutting function

Preventing inner angles from over-cut, recovering graphic's outline maximally.



File Management System

X7 CAM software for sealing industry can manage the processed documents including file name, processing time, quantity, materials, batches, etc., and generate barcode or QR code, which can be quickly called out by scanning code. It is convenient for future re-processing. The management of historic processed documents greatly facilitates users for operation.



Configurations and function selection

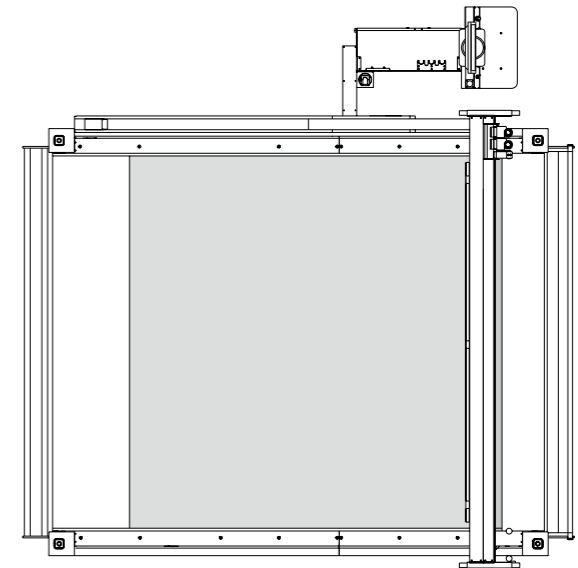
	Standard configuration	Optional configuration	
CONFIGURATIONS	Main frame		
	Laser tool calibration system		
	Double sides safety anti-collision device		
	Safety light sensor system		
	Automatic feeding device		
	Air pump		
	Head Single head Double heads Three heads		
	Independent milling system (including imported spindle and vacuum cleaning system)		
	Overhead camera		
	Projector		
	Tools		
	FEATURES	Standard control software	
		Tabletop height compensation function	
Automatic edge-finding and positioning function			
Prevent over-cutting function			
Multi-task and multi-station cycle cutting function			
File management system			
Small vision positioning system			
Large vision positioning system			
Projection positioning system			
Laser mapping positioning function			
Parametric drawing modules (seals and gaskets industry)			
National standard database (seals and gaskets industry)			
Cost estimation template (seals and gaskets industry)			

Main technical parameters

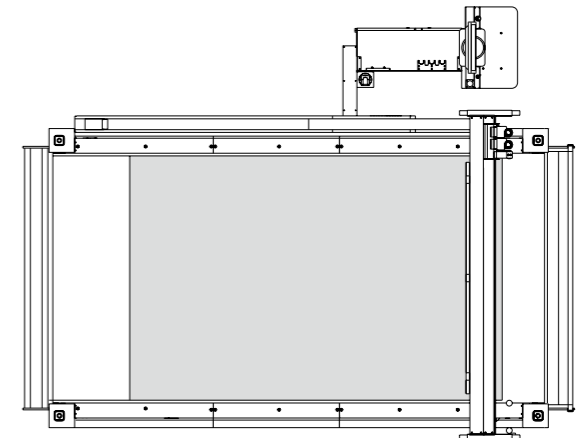
ITEM	PARAMETER
EQUIPMENT POWER	2.5kw
VACUUM PUMP POWER /	7.5/8.6 kw
CAPACITY /	380V 3 phase
OVERALL DIMENSION /	4040x3273x2630mm
WORK AREA /	1600x2500mm
MAX MATERIAL SIZE /	1700x3000mm
MAX MATERIAL PROCESSING HEIGHT /	35mm
BEAM HEIGHT /	60mm
MAX PROCESSING SPEED /	72m/min.
SERVO MOTOR QTY. /	6pcs for 2 cutting heads, 7pcs for 3 cutting heads.
WEIGHT /	1500Kg

Models and working area of X series

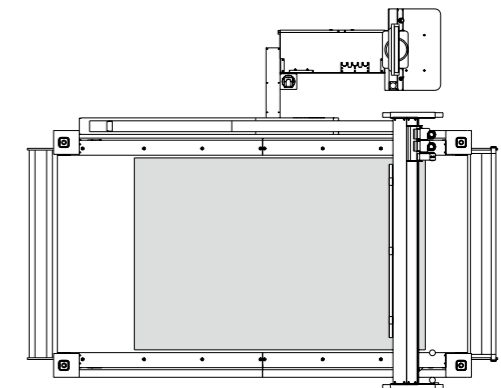
X9
Working Area:
3200 × 3200mm



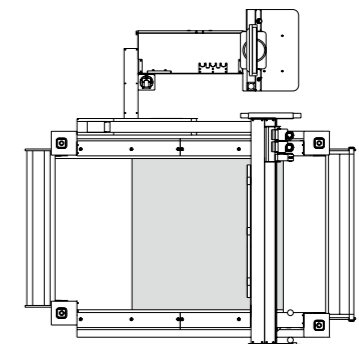
X8
Working Area:
2100 × 3200mm



X7
Working Area:
1600 × 2500mm



X3
Working Area:
1300 × 1300mm





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