

TPS

Digital Cutting Machine Series

X7

智能裁切機

Digital Cutting Machine



切割軟體支持以下文件格式

TPS cutting software supports the following file formats

AI

EPS

PDF

DXF

PLT

JPG

TIF

TPS

採用自主研發專業切割CAM軟體具有檯面補償功能自動尋邊定位,邊切優化,多任務,多工位循環切割,小視覺定位,大視覺定位,投影定位雷射光測繪定位,成本估算,文件管理等功能.



Vac-Sorb Almag alloy platform 鋁合金真空吸附檯面

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

X7採用先進的滾動式台面設計，可實現連續自動送料，理論裁剪長度無限制。
採用六區獨立吸附結構的高強度蜂窩鋁吸附台面設計，台面平整度好，不變形。採用耐切4mm厚進口毛料輸送帶，具有透氣性好，耐磨損，使用壽命長等特點，配合大吸力風機，確保加工產品時，具有超強的吸附力。

Tabletop height compensation function 智能檯面補償功能

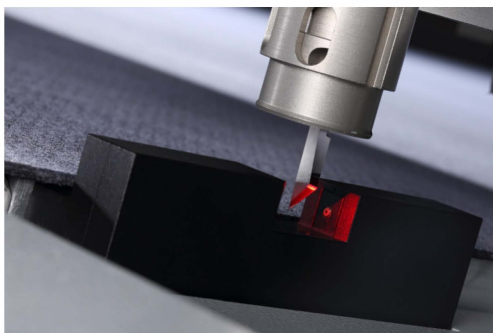
The flatness of the tabletop is detected by a high-precision distance detector, and the tabletop is corrected in real time by software to avoid the inconsistent cutting depth caused by the inconsistency between the tabletop and the tool drop, ensuring perfect cutting result.

通過高精度距離檢測儀對台面平整度進行檢測，通過軟體對台平面進行實時修正，避免台平面與刀具落差不一導致切割深度不一致的情況確保完美落差不切割效果。



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.

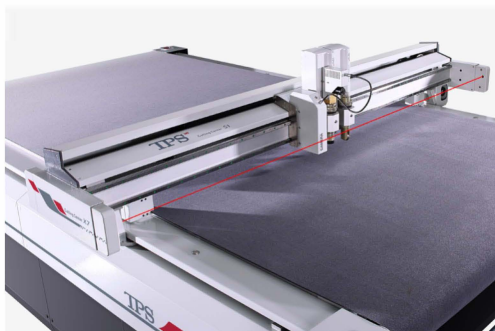
沒有高精度距離檢測儀對台面平整度進行檢測並自動運行下刀高度補償功能時會對檯面或毛毯造成巨大損失



Fiber laser tools calibrating device 光纖雷射對刀儀

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

快速簡單的自動對刀系統，採用光纖雷射傳感器對刀具進行精確檢測，大大提升對刀效率。



Safety anti-collision mechanism 防撞安全系統

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.

X7配置了安全光幕傳感器系統和機械式防撞機構，防止設備在高速運轉時對人員的傷害。

Automatic edge-finding and positioning function 自動定位套切功能

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.

採用CCD攝像頭實時拍攝圖像的方式，通過識別標誌點獲取圖形變形規律，根據變形量優化原始輪廓圖形進行精確套切。

1支持格式眾多，AI, EPS, DXF, PLT, PDF, JPG, TIF, TPS等。

2定位向量化功能，平滑算法和突變點修改。

3智能識別MARK點，導入圖形時根據圖形形狀和圖形顏色自動區分圖層。

4自定義定位圖形，圓形，方形，十字任意選擇。

5精準定位，重複定位精度可控範圍在0.1mm以內。

6弱光定位，對環境要求不高，在光線不充足情況下，也可實施定位。

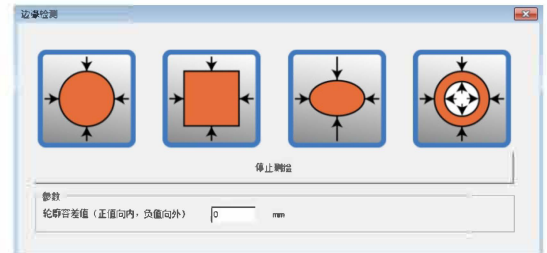


Laser mapping positioning function

雷射測繪定位功能

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.

用戶可以使用雷射測繪定位功能，對各種零件形狀進行測繪
用戶可以將加工的圖形置入測繪圖形範圍內進行精確切割
大大提高材料的利用率。

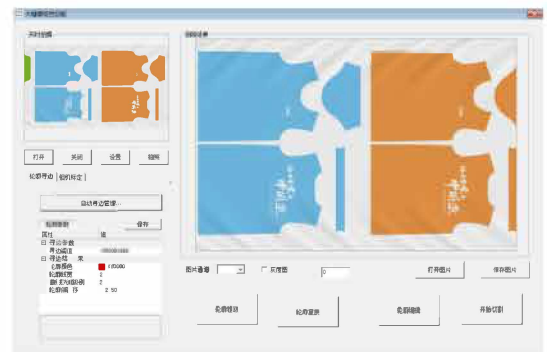


Large Vision Positioning System

大視覺定位系統

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.

由于柔性材料在受到温度、濕度、油墨、壓力、拉伸、皺褶等因素的而等致圖案變形，使用原文件輪廓元法實現對實際圖案的精準套切，通過高精度相機時拍攝輪廓提取功能，可以精確辨識提取實時工作圖案輪廓進行精確套切，尤其是在廣告噴印服裝面料行業中得到廣泛應用。

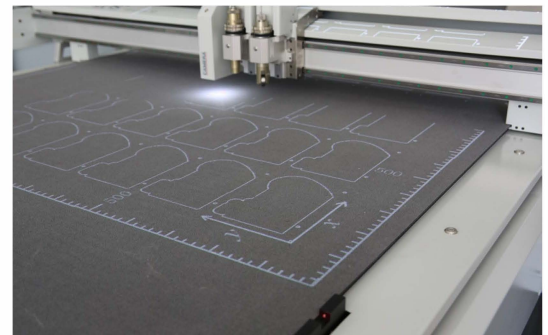


Projection Positioning System

投影定位系统

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.

在實際切割過程中，用戶很難將材料與所切圖形進行精確對位，該系統，可以將切割圖形以1:1投影在加工檯面上，方便用戶上料對位。用戶也可以將不歸則的零料放置到投影區域進行對位切割，大大提高了零料的利用率。

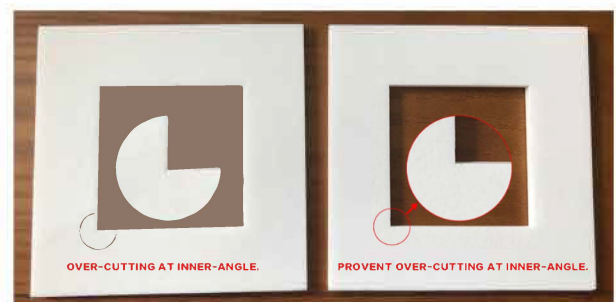


Prevent over-cutting function

過切優化功能

Prevent inner angles from over-cut and recover graphic's outline maximally.

對刀據物理過切現象進行系統優化，最大程度低還原圖形輪廓。



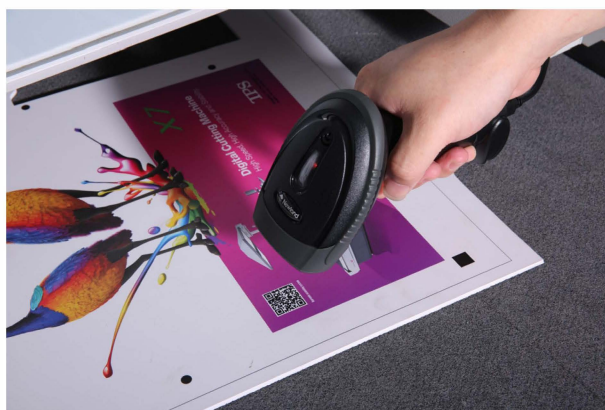
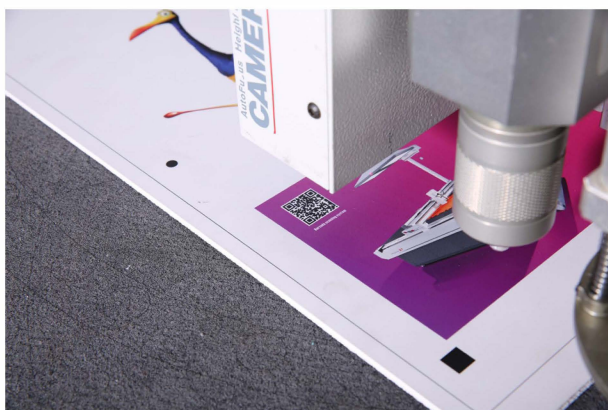


File Management System

文件管理系统

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.

X7CAM應用軟件可對加工過後的文件包括文件名、加工時間、數量、材料、批次等信息建檔管理，並生成條碼或二維碼，通過掃碼就可以快速調出該文件，方便今後的再次加工，另外還對加工文件進行歷史紀錄管理，及大地方便了用戶對已加工文件的管理。



Configurations and function selection

設備配置及添加功能配置

○ Standard configuration ● Optional configuration
標準配置 可選配置

Configuration 設備配置	○ Main frame 主機
	○ Laser tool calibration system 雷射對刀系統
	○ Double sides safety anti-collision device 雙側安全防護系統
	○ Safety light sensor system 安全光纖傳感器系統
	○ Automatic feeding device 自動送料裝置
	○ Air pump 風泵
	● Head □ Single head □ Double heads □ Three heads 機頭 單機頭 雙機頭 三機頭
	● Independent milling system (including imported spindle and vacuum cleaning system) 獨立切削系統 (包括高速、高剛性切削主軸和吸塵系統)
	● Overhead camera 配置攝像頭
	● Projector 投影儀
Features 設備功能	● Tool 刀具
	○ Standard control software 標準控制軟體
	○ Tabletop height compensation function 桌面補償功能
	○ Automatic edge-finding and positioning function 自動尋邊定位系統
	○ Prevent over-cutting function 過切優化功能
	○ Multi-task and multi-station cycle cutting function 多任務多工循環切削系統
	○ File management system 文件管理系統
	● Small vision positioning system 小視覺定位系統
	● Large vision positioning system 大視覺定位系統
	● Projection positioning system 投影定位系統
	● Laser mapping positioning function 雷射測繪定位功能
	● Parametric drawing modules (seals and gaskets industry) 參數化製圖模塊 (密封件行業)
	● National standard database (seals and gaskets industry) 圖標數據庫 (密封件行業)
	● Cost estimation template (seals and gaskets industry) 成本估算系統 (密封件行業)

Main technical parameters

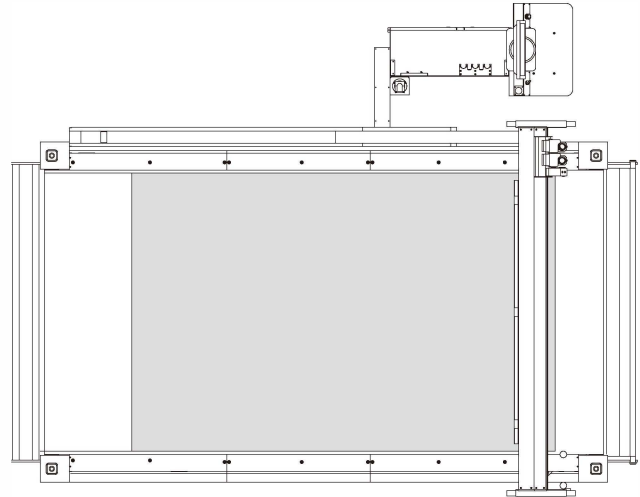
設備主要技術參數

Item	Parameter
Equipment power / 切切割設備功率	2.5kw
Vacuum pump power / 真空壓力	7.5/8.6 kw
Capacity / 電壓	380V 3 phase
Overall dimension / 設備外型尺寸	4040mmx3273mmx2630mm
Work area / 工作尺寸	1600mmx2500mm
Max material size / 最大材料尺寸	1700mmx3000mm
Max material processing height / 材料最高加工高度	35mm
Beam height / 橋樑高度	60mm
Max processing speed / 最高加工速度	72m/min.
Servo motor qty. / 伺服電機數量	6 pcs for 2 cutting heads, 7pcs for 3 cutting heads
Weight / 設備重量	1500Kg

**Models and working area
of X series**
X系列機型尺寸

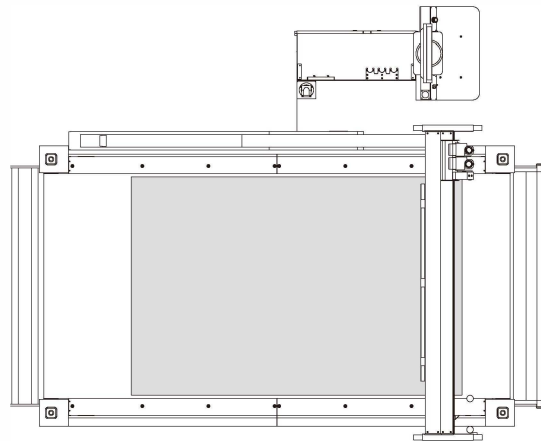
X8

Working Area:
2100mm × 3200mm



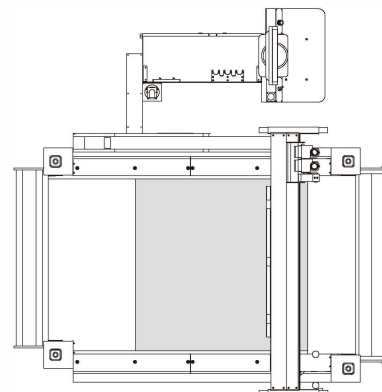
X7

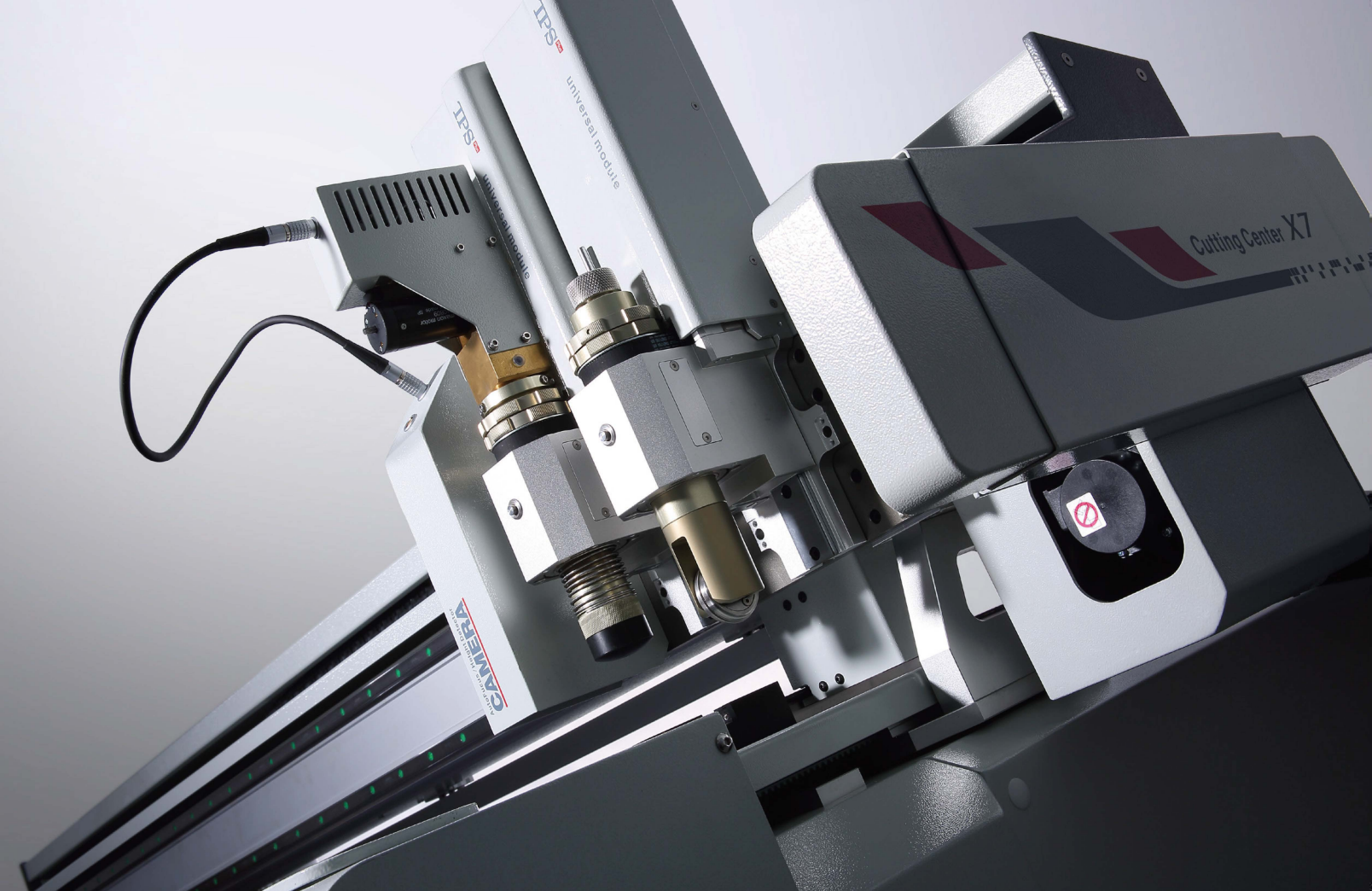
Working Area:
1600mm × 2500mm



X3

Working Area:
1300mm × 1300mm





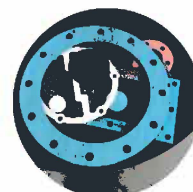
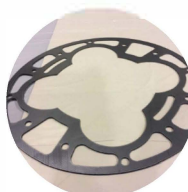
Ultra-frequency electric oscillating tool 高頻率震動刀

Applicable to cutting all kinds of corrugated, cardboard, KT board, gray board, composite materials, etc.
適合裁切各種瓦楞紙,卡紙,KT板,灰紙板,複合材料等。



Ultra-frequency pneumatic oscillating tool 高頻氣動震動刀

Applicable to cutting seal and gaskets material such as asbestos board, asbestos free board, PTFE, rubber board, fluorine rubber board, silica gel board, graphite board, graphite composite board, etc.
適用於切割石棉板,聚四氟乙烯,橡膠板,氟橡膠板、硅膠板、石墨板、石墨覆合板等密封件和墊片材料



Wheel cut tool 輪切刀工具

Applicable to cutting a wide variety of flexible material such as UV fabric, carbon fabric, glass fibre and textiles, etc.
適合裁切UV布,碳纖維,玻璃纖維和紡織品等多種柔性材料。





Universal tool module
通用刀座



Universal tool module
and tool unit
通用刀座与刀具组合



Independent milling system
(including imported spindle and vacuum cleaning system)

獨立切削系統（包括高速、高刚性切削主轴和吸尘系統）

It can cut acrylic, aluminum composite panel and MDF, etc. in 20mm thickness.

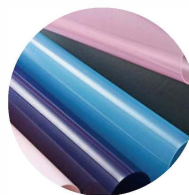
可以切割厚度20mm以內的壓克力、鋁塑板、密度板等硬原材料。



Non-oscillating tool
拖刀工具

Applicable to cutting a wide variety of flexible material less than 3mm thickness.

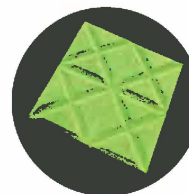
適合裁切各種3mm以下的柔性材料。



Multi-angle V-Cut tool
多角度斜切刀工具

It can make V-cut angles of 15°, 22.5°, 30° and 45° for cardboard less than 20mm thickness

可裁切 15°、22.5°、30°等、45°角，適合裁切小於 20mm 的各類紙板。



Creasing tool
壓痕刀工具

Creasing tools are used in packaging industry for making cartons and boxes of corrugated board, cardboard and pp hollow board, etc.

用於各種瓦楞紙和蜂巢板進行折痕加工,定向壓力調整壓痕或皺褶



Kiss-cut Tool
半切刀工具

Applicable to all kinds of stickers, Vinyl, engineering reflective film, etc.

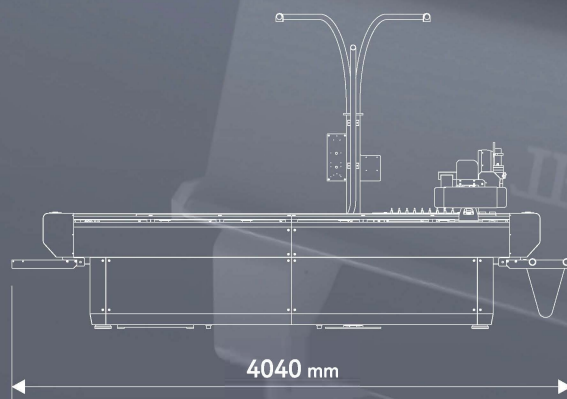
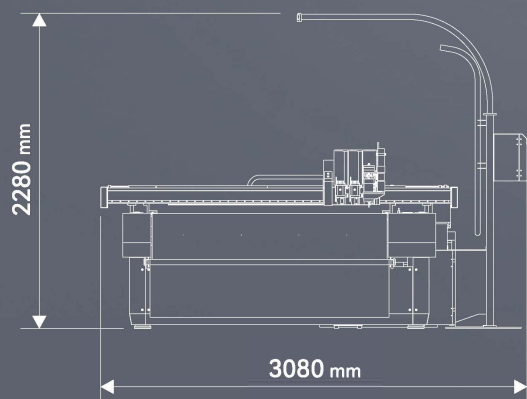
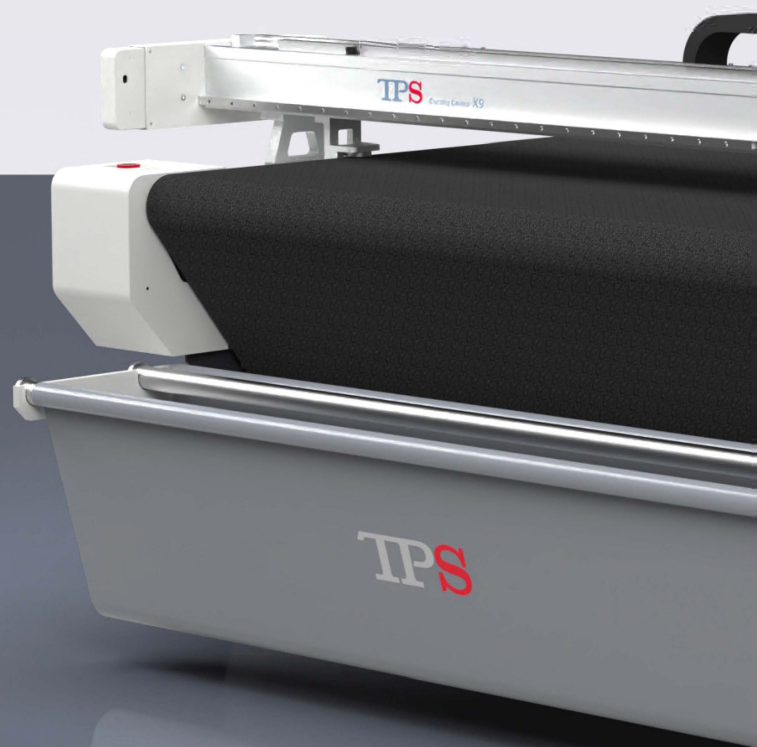
適用於各類標貼,工程反光膜。



X9 2516

智能裁切機

Digital Cutting Machine





切割軟體支持以下文件格式

TPS cutting software supports the following file formats

AI

EPS

PDF

DXF

PLT

JPG

TIF

TPS



1. 可選購以下刀具



切削系統



高頻電動振動刀



拖刀工具



壓痕刀工具



半切刀工具



斜切刀工具



虛線刀工具

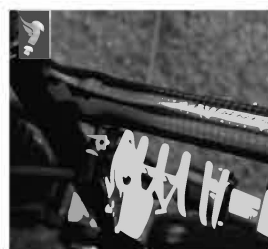
2. 可完成以下工作



廣告



包裝



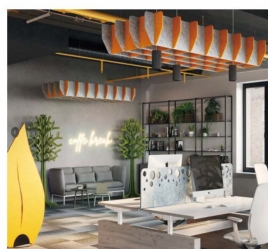
複合材料



服飾



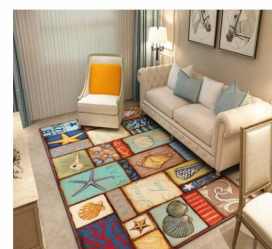
家具



PET聚酯塑料



室內裝潢



地毯

Main technical parameters

Overall dimension / 設備外型尺寸 ;	4040mm×3080mm×2280mm	Drive system / 傳動系統	Full servo linear guiderail ,synchronous belt 全伺服,直線滑軌同步皮帶
Work area / 工作尺寸:	1600mm×2500mm	Number of motor / 電機數量	7
Work platform / 工件台面:	Aluminum alloy honeycomb table and conveying carpet 鋁合金蜂窩真空台面 + 毛毡传动	Format of supported files / 支持文件格式:	AI、EPS、DXF、PLT、PDF、JPG、TIF、TPS
Max material processing height / 材料最高加工高度:	≤50mm (Depending on different material 根據不同材質)	Equipment power / 設備總功率	12kw (含1.8Kw主軸)
Beam height / 橫梁高度:	70mm	Capacity / 電壓 :	380V 60Hz/50Hz
Material fixation method / 材料固定方式:	Vacuum adsorption / 真空吸附	Applications / 適合行業及材料 : Apply to advertising, printing, marriage present and other industries, can cut KT board, corrugated board, cardboard, PP, sticker, vinyl, reflecting material, composite material and any other kinds of flexible materials of thickness within 10mm, depending on hardness of material. 應用於廣告、印刷、喜慶禮品等行業, 可切割KT板、瓦楞紙、卡紙、PP紙、車貼、反光材料、覆合材料等不超過 10 mm 的各種柔性材料。	
Max processing speed / 最大空程速度 :	72M /min		
Positioning method / 定位方式:Repeatable	Camera / 相機		
cutting accuracy / 重複切割精度 :	±0.2mm		

1. 切割模組

兩個適用於不同刀具的通用切割頭和一個獨立的 1.8kw 銑頭。

2. 高畫質鏡頭

高解析度海康威視工業相機 (1) 每秒影格數: 173 (2) 介面: 千兆位元乙太網路 (3) FA相機鏡頭

3 雷射測距儀

檯面平整度採用高精度,日本距離檢測儀檢測,並透過軟體即時修正檯面,避免檯面與落刀不一致造成的切削深度不一致,確保完美的切削效果。此感測器還可用於檢測不同物體的厚度和形狀。

4. 安全防撞系統

配備安全光幕感應器和機械防撞機構,防止設備在高速移動時傷害人員。

5. 自動換刀系統

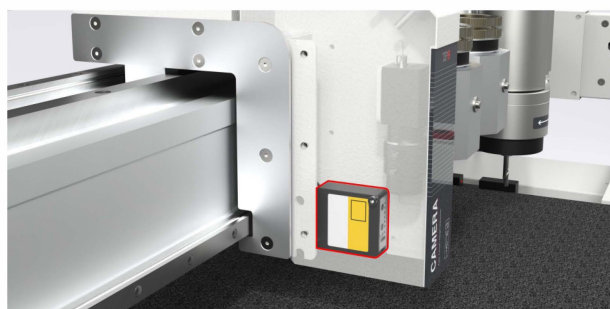
壓力感測和雷射感測的自動刀具,初始化工具使更換刀片和銑刀更加安全和快捷,因為消除了與此類更換相關的操作員錯誤。

6. 自動銑刀更換裝置/ARC

X9刀具具備氣動夾緊系統。與 ARC 一起,它可以容納多達 9 個銑刀鑽頭,即使對於需要不同鑽頭類型和直徑的作業也能實現全自動銑削。

7. 主軸模組

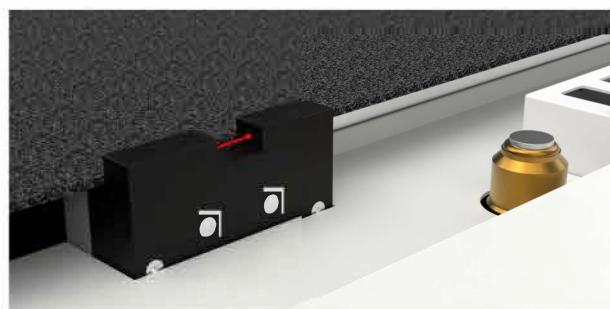
1.8kw銑刀模組,轉速高達60000 RPM,水冷和風冷,氣動夾緊系統,除塵確保清潔的工作環境和無可挑剔的邊緣品質。



雷射感應裝置



高解析度鏡頭



夾舌匣加無匣



自動刀具更換

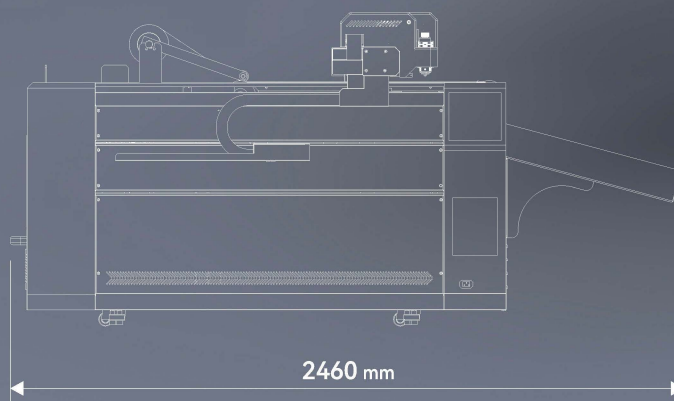
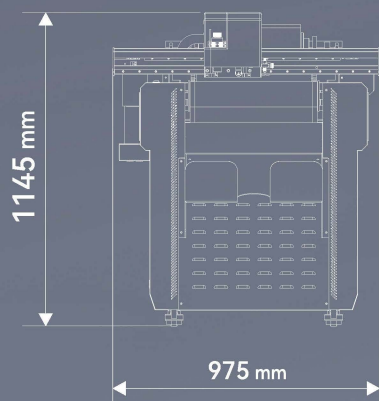
S2 4060

智能裁切機

Digital Cutting Machine

S2-4060智能切割機整機採用一體式結構設計，機器占地小，移動方便，採用全自動上紙吸盤和全自動升降送料平台，配合各類刀具可高速、精準地完成全切、半切、折痕、虛線切、標記等生產工藝，軟體操作便捷，可一鍵式操作，無需繁瑣設置，無需過高的人員技術要求。適用於廣告標誌及印刷包裝行業、婚慶禮品行業的打樣及小批量個性化數字模切加工。

Digital cutting machine model S2-4060 adopts one-piece structure design. It is easy to move the machine with its small footprint. It also adopts automatic material suckers and lifting feeding table. It can cooperate with all kinds of cutting tools to full cut, kiss cut, crease, perforate, mark, and complete other production processing fast and precisely. The software is easy to operate and can achieve "one-click" operation. There is no need of complicated settings and there is no need for highly technical requirements of personnel. It applies to proofing and small-batch personalized digital die-cutting processing in the signs of advertising, printing, packaging, and wedding gift industries.





切割軟體支持以下文件格式

TPS cutting software supports the following file formats

AI

EPS

PDF

DXF

PLT

JPG

TIF

TPS



1 Optional tool units as following 可選擇的切割工具



Ultra-frequency electric
oscillating tool
高频电动振动刀



Non-oscillating tool
拖刀工具

2 Application industry 應用行業



廣告印刷業
Advertising printing industry



包裝行業
Packaging industry



婚禮禮品行業
Wedding gift industry



其他行業
Other industries

設備主要技術參數 Main technical parameters

Overall dimension / 設備外型尺寸 (含料架):	2460mm×975mm×1145mm	Drive system / 傳動系統	Full servo linear guiderail, synchronous belt 全伺服, 直線滑軌同步皮帶
Work area / 工作尺寸:	400mm×600mm	Number of motor / 電機數量	5
Work platform / 工件台面:	Aluminum alloy honeycomb table and conveying carpet 鋁合金蜂窩真空台面+毛毯傳動	Format of supported files / 支持文件格式:	AI, EPS, DXF, PLT, PDF, JPG, TIF, TPS
Max material processing height / 材料最高加工高度:	≤10mm (Depending on different material / 根據不同材質)	Equipment power / 設備總功率	3.0Kw
Beam height / 橫梁高度:	30mm	Capacity / 電壓:	220V 60Hz/50Hz
Material fixation method / 材料固定方式:	Vacuum adsorption / 真空吸附	Net Weight / 設備質量:	350Kg
Max processing speed / 最大空程速度:	72M/Min.	Applications/ 適合行業及材料:	應用於廣告、印刷、喜慶禮品等行業, 可切割KT板、瓦楞紙、卡紙、PP紙、車貼、反光材料、覆合材料等不超過10mm的各種柔性材料。
Positioning method / 定位方式: Repeatable	CCD camera, Red light (紅光)		
cutting accuracy/重複切割精度:	±0.1mm		

1、切割機頭 / Cutting head

* 切割機頭標配兩通用刀座和兩個圖文半切刀刀座，可以安裝電動振動力、拖刀、壓痕刀、斜切刀、主動半切刀、虛線刀及兩個圖文半切刀切割工具，以滿足用戶對不同材料和不同工藝進行加工和制作的要。

The cutting head is equipped with 2pcs of universal tool holder and 2pcs of plotting kiss-cut tool holder that can install electric oscillating tool(EOT), drag tool, creasing tool, V-cut tool, following kiss-cut tool, perforation tool and 2pcs of plotting kiss-cut tool, etc. to meet the users' requirements for different materials and different processing at work.

*S3系列裁切機頭安裝的所有刀具上下運動由伺服電機控制，大大提高了加工效率、切深精度和操作便捷性。

All tools' up and down movement of the S3 series of digital die cutter is controlled by servo motor, which greatly improves the efficiency of processing, the precision of cutting depth and the ease of operation.

* 標配兩個圖文半切刀，可對車貼、不黏膠卡紙等相對比較薄軟的材料通過不同切割深度的調整進行全切或半切，切割精度高，速度快，並能對精細的圖形和文字切出精美的效果。

2pcs of standard configured plotting kiss-cut tool can full cut or kiss-cut filmy and soft materials such as sticker, vinyl and cardboard by adjusting to different cutting depth with high precision and high speed. The cutting effect of fine graphics and text is pretty good.

* 定位系統安裝有可調照明亮度的LED裝置，確保高清CCD攝像頭在光線不良的環境下高精度採集到加工材料上的定位點，實現對工件的高精度套位切割。針對反光表面的材料切割，可通過對LED照明亮度的調節確保CCD攝像頭有效採集到定位點。

The positioning system is equipped with LED lighting device with adjustable illumination brightness to ensure that the HD CCD camera can accurately capture registration marks on material under insufficient light and achieve high-precision cutting for the work pieces. For cutting the reflective material, the LED illumination brightness can be adjusted to ensure that the CCD camera can effectively capture the registration marks.

2、自動升降料裝置/Automatic lifting material device

把需要切割的材料放在上料台上，點擊軟體上的回零鍵進行一鍵回零，自動升降料裝置會將材料平面升至對射紅光感應位置，材料分離裝置通過吹氣將材料分離，再通過懸浮式強力吸紙吸盤將片材帶入加工台面進行加工，有效防止上料過程中的“帶料”現象和脫落現象。

After loading the material on material lifting table and click "XY" key to set all axis home, the automatic material lifting device raises the material top to the red light-sensing position. The material separating device separates the material by blowing air, and then takes a sheet to the processing table for processing through the suspended strong sucker, effectively preventing the phenomenon of taking material and falling off during the feeding process.

3、切割台面 / Cutting table

採用航空鋁真空吸附台面，吸附力大，確保高精度切割。裁切台面最大可裁切1000mmX1300mm，履帶式切割毛毯，透氣性好，將可自動將加工完成的材料送至成品集料區。

It adopts aviation aluminum vacuum table with strong adsorption to ensure high precision cutting. The effective cutting range can be up to 1000mmx1300mm on cutting table. Tracked conveyor felt with good air permeability can automatically send processed materials to the finished collection holder.

4、捲料機構 / Roll Material Feeding System

為了滿足帶有印刷和定位桌的捲料進行切割的需求，卷料安裝和送料機構可作為選配。

To meet the need of rolls cutting with printing and positioning points, the roll material mounting and feeding system is available as an option.

5、文件導入 / Files Import

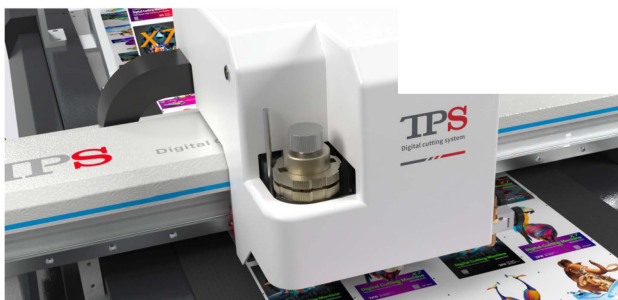
CCD相機可通過對打印在切割材料上的二維碼進行採集把所要加工的切割文件導入到TPS自我研發的切割軟體中進行連續切割。

The CCD camera can capture the QR code printed on the cut material and import the cut file to the TPS self-developed cutting software for continuous cutting.

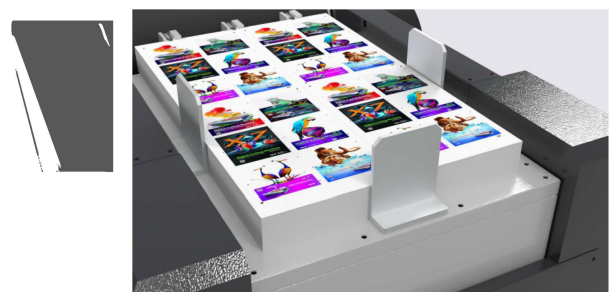
6、成品收集 / Collection of Finished Sheets

設置成品收集盒可以將切好的成品收入盒內，無需人工接料，方便在無人看守時，自動完成終端成品集中與收納。

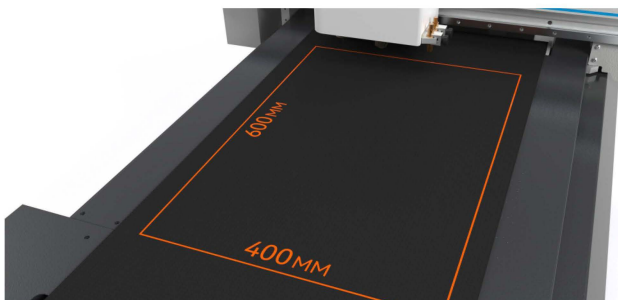
The finished sheets collection tray can collect the finished products without manual picking up, and it is convenient to finish collecting and storing the finished sheets automatically when no one is overseeing.



Cutting head / 切割機頭



Automatic lifting material device / 自動升降料裝置



Cutting table / 切割台面



Finished product collection / 成品收集

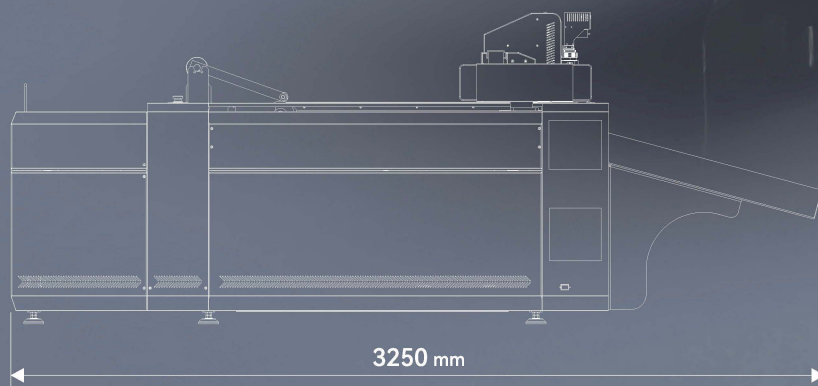
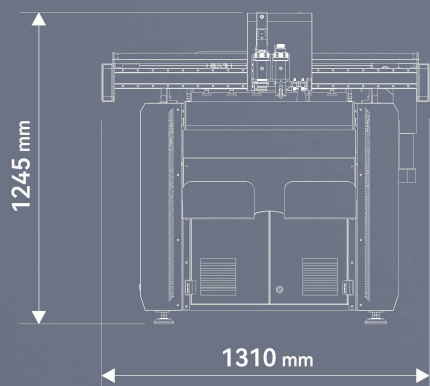
S2 6090

智能裁切机

Digital Cutting Machine

S2-6090智能切割機整機採用一體式結構設計，機器占地小，移動方便，採用全自動上紙吸盤和全自動升降送料平台，配合各類刀具可高速、精準地完成全切、半切、折痕、虛線切、標記等生產工藝，軟體操作便捷，可一鍵式操作，無需繁瑣典設置，無需過高的人員技術要求。適用於廣告標誌及印刷包裝行業、婚慶禮品行業的打樣及小批量個性化數字模切加工。

Digital cutting machine model S2-6090 adopts one-piece structure design. It is easy to move the machine with its small footprint. It also adopts automatic material suckers and lifting feeding table. It can cooperate with all kinds of cutting tools to full cut, kiss cut, crease, perforate, mark, and complete other production processing fast and precisely. The software is easy to operate and can achieve "one-click" operation. There is no need of complicated settings and there is no need of highly technical requirements for personnel. It applies to proofing and small-batch personalized digital die-cutting processing in the signs of advertising, printing, packaging, and wedding gift industries.





切割軟體支持以下文件格式

TPS cutting software supports the following file formats

AI

EPS

PDF

DXF

PLT

JPG

TIF

TPS



1

Optional tool units
可選配切割工具單元



高頻電動振動刀
Ultra-frequency electric
oscillating tool



拖刀工具
Non-oscillating
tool



壓痕刀工具
Creasing tool



半切刀工具
Kiss-cut Tool



斜切刀工具
V-Cut tool



虛線刀工具
Perforation tool
head

2

Application
industry
應用行業



廣告印刷行業
Advertising printing industry



包裝行業
Packaging industry



婚慶禮品行業
Wedding gift industry



其他行業
Other industries

設備主要技術參數 Main technical parameters

Overall dimension / 設備外型尺寸 (含料架):	3250mm×1310mm×1245mm	Drive system / 傳動系統	Full servo linear guiderail, synchronous belt 全伺服, 直線滑軌同步皮帶
Work area / 工作尺寸:	600mm×900mm	Number of motor / 電機數量	6
Work platform / 工件台面:		Format of supported files / 支持文件格式:	AI, EPS, DXF, PLT, PDF, JPG, TIF, TPS
Max material processing height / 材料最高加工高度:	≤ 10mm (Depending on different material / 根据不同材质)	Equipment power / 設備總功率	3.2Kw
Beam height / 橫梁高度:	60mm	Capacity / 電壓:	220V 60Hz/50Hz
Material fixation method / 材料固定方式:	Vacuum adsorption / 真空吸附	Net Weight / 設備質量:	460Kg
Max processing speed / 最大空程速度:	72M/Min.	Applications/ 適合行業及材料: 應用於廣告、印刷、喜慶禮品等行業, 可切割KT板、瓦楞紙、卡紙、PP紙、車貼、反光材料、覆合材料等不超過 10 mm 的各種柔性材料。	
Positioning method / 定位方式: Repeatable	CCD camera, Red light (紅光)		
cutting accuracy/重複切割精度:	±0.1mm		

1. 切割機頭 / Cutting head

* 切割機頭標配兩通用刀座和兩個圖文半切刀刀座，可以安裝電動振動刀、拖刀、壓痕刀、斜切刀、主動半切刀、虛線刀及兩個圖文半切刀切割工具，以滿足用戶對不同材料和不同工藝進行加工和制作的要求。

The cutting head is equipped with 2pcs of universal tool holder and 2pcs of plotting kiss-cut tool holder that can install electric oscillating tool(EOT), drag tool, creasing tool, V-cut tool, following kiss-cut tool, perforation tool and 2pcs of plotting kiss-cut tool, etc. to meet the users' requirements for different materials and different processing at work.

*S3系列裁切機頭安裝的所有刀具上下運動由伺服電機控制，大大提高了加工效率、切深精度和操作便捷性。

All tools' up and down movement of the S3 series of digital die cutter is controlled by servo motor, which greatly improves the efficiency of processing, the precision of cutting depth and the ease of operation.

* 標配兩個圖文半切刀，可對車貼、不黏膠卡紙等相對比較薄軟的材料通過不同切割深度的調整進行全切或半切，切割精度高，速度快，並能對精細的圖形和文字切出精美的效果。

2pcs of standard configured plotting kiss-cut tool can full cut or kiss-cut filmy and soft materials such as sticker, vinyl and cardboard by adjusting to different cutting depth with high precision and high speed. The cutting effect of fine graphics and text is pretty good.

* 定位系統安裝有可調照明亮度的LED裝置，確保高清CCD攝像頭在光線不良的環境下高精度採集到加工材料上的定位點，實現對工件的高精度套位切割。針對反光表面的材料切割，可通過對LED照明亮度的調節確保CCD攝像頭有效採集到定位點。

The positioning system is equipped with LED lighting device with adjustable illumination brightness to ensure that the HD CCD camera can accurately capture registration marks on material under insufficient light and achieve high-precision cutting for the work pieces. For cutting the reflective material, the LED illumination brightness can be adjusted to ensure that the CCD camera can effectively capture the registration marks.

2. 折疊式自動升降料裝置 / Foldable Automatic Lifting Device

折疊式自動升降裝置根據用戶的需求可作為此款機器的選配。把需要切割的材料放在上料台上，通過軟體對自動升降料裝置一鍵置位，會將材料平面升到對射紅光感應位置，材料分離裝置通過吹器將材料分離，再通過懸浮式吸紙吸盤將片材帶入加工台面進行加工，有效防止上料過程中的“帶料現象和脫落現象”。

The foldable automatic lifting device can be an optional part as the users' request. After loading the material on material lifting table and click the "table reset" key to move the tabletop to the red light-sensing position. The material separating device separates the material by blowing air, and then takes a sheet to the processing table for processing through the suspended strong sucker effectively preventing the phenomenon of taking materials and falling off during the feeding process.

3. 切割台面 / Cutting table

採用航空鋁真空吸附台面，吸附力大，確保高精度切割。裁切台面最大可裁切1000mmX1300mm，履帶式切割毛毯，透氣性好，將可自動將加工完成的材料送至成品集料區。

It adopts aviation aluminum vacuum table with strong adsorption to ensure high precision cutting. The effective cutting range can be up to 1000mmx1300mm on cutting table. Tracked conveyor felt with good air permeability can automatically send processed materials to the finished collection holder.

4. 送料機構 / Roll Material Feeding System

為了滿足帶有印刷和定位點的卷料進行切割的需求，卷料裝置和送料機構可作為選配。

To meet the need of rolls cutting with printing and registration marks, the roll material mounting and feeding system is available as an option.

5. 文件導入 / Files Import

CCD相機可通過對打印在切割材料上的二維碼進行採集把所要加工的切割文件導入到TPS自我研發的切割軟體中進行連續切割。

The CCD camera can capture the QR code printed on the cut material and import the cut file to the TPS self-developed cutting software for continuous cutting.

6. 成品收集 / Collection of Finished Sheets

設置成品收集盒可以將切好的成品收入盒內，無需人工撿料，方便在無人看守時，自動完成終端成品集中與收納。

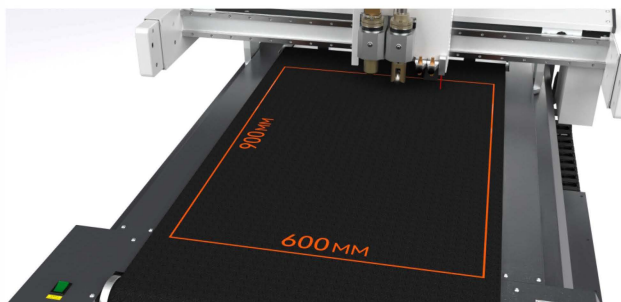
The finished sheets collection tray can collect the finished products without manual picking up, and it is convenient to finish collecting and storing the finished sheets automatically when no one is overseeing.



Cutting head / 切割機頭



Automatic lifting material device / 自動升降料裝置



Cutting table / 切割台面



Finished product collection / 成品收集

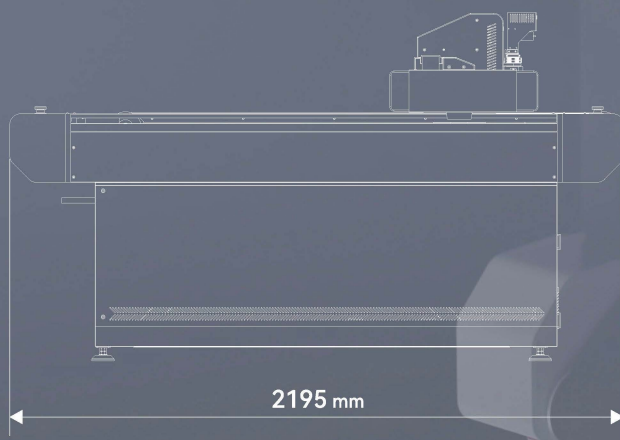
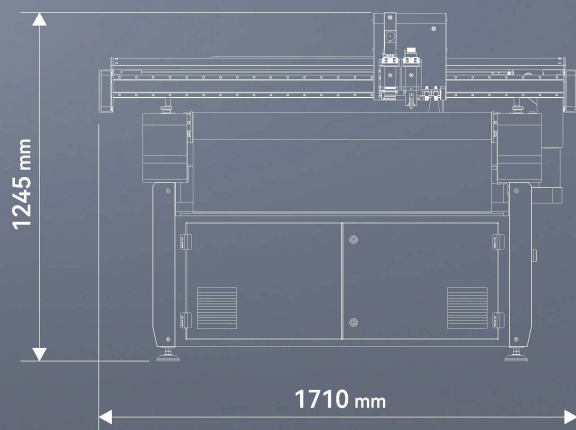
S3 1310

智能裁切机

Digital Cutting Machine

S3是一款適合圖文標籤及卡紙包裝行並的較大型的打樣生產神機，具有操作要求低，投資回報率高等諸多優勢。機器占地面積小，加工幅面1300*1000mm，最大加工厚度可達10mm，配留有滾動式毛毯送料機構，全自動上紙吸盤及另可選配的可折疊式自抬升降放料平臺。集成式多功能切割機頭配備兩組圈文刀座和2-T快換通用刀座可安裝電動振動刀，拖刀，主切式半切刀，壓痕刀，斜切刀和虛線刀等多種刀具，使設備應用範圍更廣，可加工的材料和加工工藝更多，是圖文標籤及卡紙包裝行此的好幫手！

Digital die cutter model S3 is a great fantastic larger proofing machine suitable for graphic labels and packaging industry. It has many advantages such as "one-click" operation, wide application range and high return on investment. With its small footprint, the processing area of the machine is 1000mm*1300mm and the maximum processing thickness can reach 10mm. The machine is equipped with conveyor feeding system, automatic suckers and optional foldable automatic lifting material device. Integrated multi-function cutting head is equipped with two pieces of plotting kiss-cut tool holder and two pieces of quick-change universal tool holder, which can be installed with electric oscillating tool(EOT), drag tool, kiss-cut tool, creasing tool, V-cut cutting tool, perforation tool and other cutting tools. It makes not only the application range much wider, but also much more of the materials variety and the processing artwork. It is a perfect helper in printing advertising and packaging industry!





控制台為選配件
※ The console is optional.

切割軟體支持以下文件格式

TPS cutting software supports the following file formats





1 Optional tool units 可選配切割工具單元



高頻電動振動刀
Ultra-frequency electric
oscillating tool



拖刀工具
Non-oscillating
tool



壓痕刀工具
Creasing tool



半切刀工具
Kiss-cut Tool



斜切刀工具
V-Cut tool



虛線刀工具
Perforation tool
head

2 Application industry 應用行業



廣告印刷行業
Advertising printing industry



包裝行業
Packaging industry



婚慶禮品行業
Wedding gift industry



其他行業
Other industries

設備主要技術參數 Main technical parameters

Overall dimension / 設備外型尺寸 (含料架) :	2195mm×1710mm×1245mm	Drive system / 傳動系統	Full servo, linear guide rail, synchronous belt 全伺服、直線導軌、同步帶
Work area / 工作尺寸:	1000mm×1300mm	Number of motor / 電機數量	6
Work platform / 工件台面:	Aluminum alloy honeycomb table and conveying carpet 鋁合金蜂窩真空台面+毛毯傳動	Format of supported files / 支持文件格式:	AI, EPS, DXF, PLT, PDF, JPG, TIF, TPS
Max material processing height / 材料最高加工高度:	≤10mm (Depending on different material / 根據不同材質)	Equipment power / 設備總功率	5.0Kw
Beam height / 橫梁高度:	60mm	Capacity / 電壓:	220V 60Hz/50Hz
Material fixation method / 材料固定方式:	Vacuum adsorption / 真空吸附	Net Weight / 設備質量:	660Kg
Max processing speed / 最大空程速度:	72M/Min.	Applications / 適合行業及材料:	應用於廣告、印刷、喜慶禮品等行業，可切割KT板、瓦楞紙、卡紙、PP紙、單貼、反光材料、覆合材料等不超過10mm的各種柔性材料。
Positioning method / 定位方式: Repeatable	CCD camera, Red light (紅光)		
cutting accuracy / 重複切割精度:	±0.1mm		

1. 切割機頭 / Cutting head

* 切割機頭標配兩通用刀座和兩個圖文半切刀刀座，可以安裝電動振動刀、拖刀、壓痕刀、斜切刀、主動半切刀、虛線刀及兩個圖文半切刀切割工具，以滿足用戶對不同材料和不同工藝進行加工和制作的要求。

The cutting head is equipped with 2pcs of universal tool holder and 2pcs of plotting kiss-cut tool holder that can install electric oscillating tool(EOT), drag tool, creasing tool, V-cut tool, following kiss-cut tool, perforation tool and 2pcs of plotting kiss-cut tool, etc. to meet the users' requirements for different materials and different processing at work.

*S3系列裁切機頭安裝的所有刀具上下運動由伺服電機控制，大大提高了加工效率、切深精度和操作便捷性。

All tools' up and down movement of the S3 series of digital die cutter is controlled by servo motor, which greatly improves the efficiency of processing, the precision of cutting depth and the ease of operation.

* 標配兩個圖文半切刀，可對車貼、不黏膠卡紙等相對比較薄軟的材料通過不同切割深度的調整進行全切或半切，切割精度高，速度快，並能對精細的圖形和文字切出精美的效果。

2pcs of standard configured plotting kiss-cut tool can full cut or kiss-cut filmy and soft materials such as sticker, vinyl and cardboard by adjusting to different cutting depth with high precision and high speed. The cutting effect of fine graphics and text is pretty good.

* 定位系統安裝有可調照明亮度的LED裝置，確保高清CCD攝像頭在光線不良的環境下高精度採集到加工材料上的定位點，實現對工件的高精度套位切割。針對反光表面的材料切割，可通過對LED照明亮度的調節確保CCD攝像頭有效採集到定位點。

The positioning system is equipped with LED lighting device with adjustable illumination brightness to ensure that the HD CCD camera can accurately capture registration marks on material under insufficient light and achieve high-precision cutting for the work pieces. For cutting the reflective material, the LED illumination brightness can be adjusted to ensure that the CCD camera can effectively capture the registration marks.

2. 折疊式自動升降料裝置 / Foldable Automatic Lifting Device

折疊式自動升降裝置根據用戶的需求可作為此款機器的選配。把需要切割的材料放在上料台上，通過軟體對自動升降料裝置一鍵覆位，會將材料平面升到對射紅光感應位置，材料分離裝置通過吹器將材料分離，再通過懸浮式吸紙吸盤將片材帶入加工台面進行加工，有效防止上料過程中的“帶料現象和脫落現象”。

The foldable automatic lifting device can be an optional part as the users' request. After loading the material on material lifting table and click the“table reset”key to move the tabletop to the red light-sensing position. The material separating device separates the material by blowing air, and then takes a sheet to the processing table for processing through the suspended strong sucker effectively preventing the phenomenon of taking materials and falling off during the feeding process.

3. 切割台面 / Cutting table

採用航空鋁真空吸附台面，吸附力大，確保高精度切割。裁切台面最大可裁切1000mmX1300mm，履帶式切割毛毯，透氣性好，將可自動將加工完成的材料送至成品集料區。

It adopts aviation aluminum vacuum table with strong adsorption to ensure high precision cutting. The effective cutting range can be up to 1000mmx1300mm on cutting table. Tracked conveyor felt with good air permeability can automatically send processed materials to the finished collection holder.

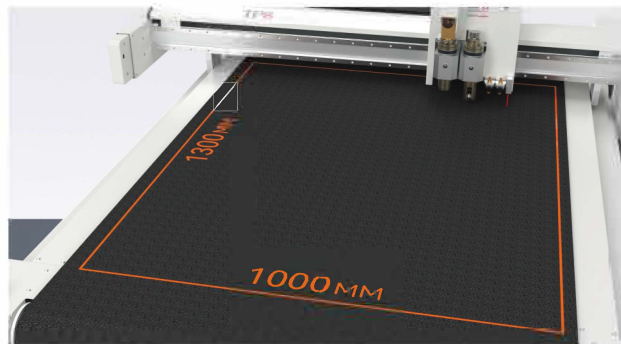
4. 文件導入 / Files Import

CCD相機可通過對打印在切割材料上的二維碼進行採集把所要加工的切割文件導入到TPS自我研發的切割軟體中進行連續切割。

The CCD camera can capture the QR code printed on the cut material and import the cut file to the TPS self-developed cutting software for continuous cutting.



切割機頭
Cutting head



切割台面
Cutting table



折疊式自動升降料裝置
Foldable Automatic Lifting Device



文件導入
Files import

C 2513Z

MULTI-FUNCTIONAL CNC ROUTER 多功能視覺定位雕刻 / 切割機

C-2513Z是TPS最新研發的雕刻機、裁切於一體的多功能視覺定位雕刻 / 裁切智能數控裝置。該設備採用直列是鋼結構工業床身結構和全鋁龍門設計，床體經震動時效技術處理後，加工表面及安裝孔位全部由高精度龍門銑床一次加工成型。設備配備了高速水冷模具主軸、高頻電動震動刀、CCD視覺定位系統和大吸力吸塵系統，採用高性能運動控制系統和TPS自主研發的專業雕刻 / 裁切CAM軟體操作，具有操作簡單方便、運行速度快、精度高、吸塵效果好的特點，廣泛應用於廣告標誌雕刻及噴印裁切等行業的KT板、PVC板、並克力、鋁、銅、鋁鋅板、塑膠、碳纖維複合材料、燈片、軟膜、不殘膠等材料的切割。



Main technical parameters 設備主要技術參數

Item	Parameter
Work area / 工作尺寸:	1300mmx2500mm
Equipment power / 設備電機功率:	3.5kw
Total Spindle Power / 主軸功率:	2.2Kw
Vibration frequency of EOT / 高頻電振動刀振頻:	14000rpm
Vacuum pump power / 真空泵功率:	7.5 kw
Max processing speed / 空程最高運行速度	72m/min.
Repeat position accuracy / 重複精度	± 0.05
Moving axis qty. / 運動控制軸數量	4 Axis
Servo motor qty. / 伺服電機數量:	5pcs
Capacity / 電壓:	AC380V 50Hz(3 phase)
Overall dimension / 設備外形尺寸:	2300mmx3200mmx1750mm
Weight / 設備重量:	1000Kg

TPS切割軟體支援以下文件格式

TPS cutting software supports the following file formats

AI

EPS

PDF

DXF

PLT

JPG

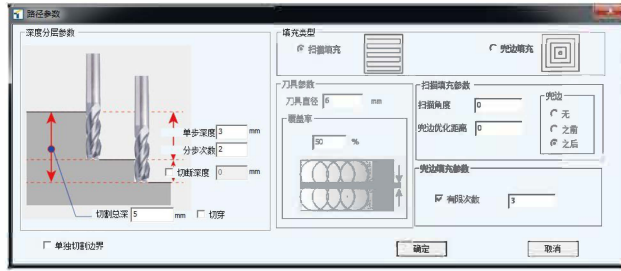
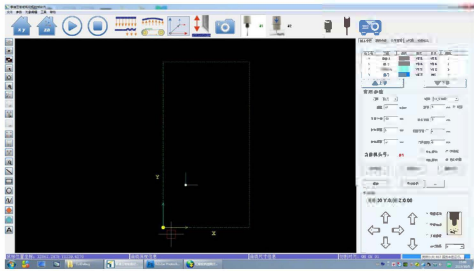
TIF

TPS

TPS CNC router model C2513Z is the latest developed engraving and cutting intelligent equipment, which integrates carving, cutting and multi-functional vision positioning . The equipment is designed with the structure of industrial steel machine bed and the aluminum gantry. The machine bed is treated by vibration aging technology, the processing surface and the installation holes of which are all processed by the precise gantry milling machine by once. The router is equipped with high-speed water-cooled spindle, ultra-frequency electric oscillating knife, CCD visual positioning system and vacuum cleaning system. With international high performance motion control system and TPS independent developed and professional CAM software for carving and cutting, the machine has advantages of simple and convenient operating, high speed, high precision and perfect effect of dust collection. It is widely applied in advertising and sign industry, printing and cutting industry and other industries. Its application materials is KT board, PVC board, acrylic sheet, MDF, aluminum, copper, aluminum composite panel, plastic, carbon fiber composite materials,PC sheet, soft film, vinyl, magnetic sticker and so on.



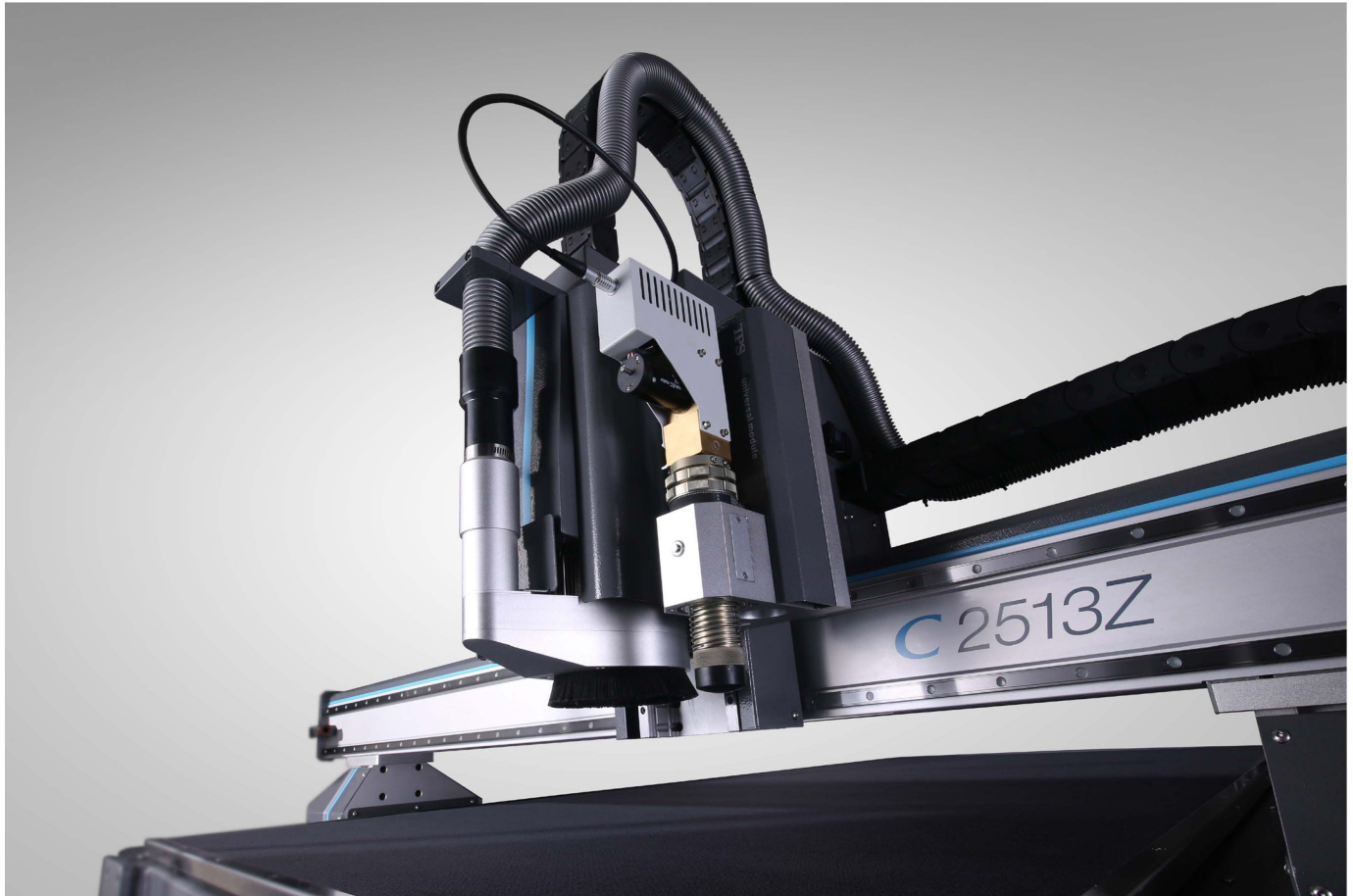
TPS high speed cutting system 高速切割系統



C-2513Z is a machine integrating visual positioning, carving and cutting, which is with new mechanical design, precision processing and strict assembly, completely representing different from the traditional. Moving parts adopts screw, guide rail, grinding grade rack and pinion and ac servo motor of all imported. Control system adopts high speed motion control system and TPS independent developed high speed engraving software, with the help of which, there is no need to edit by third-party software before cutting. Built-in multiple cutting methods, it has features of quick speed, good stability and perfect performance. Its free running speed can reach 72 m/Min and the feeding speed is 8 ~ 15 m/Min. It not only provides users with satisfying experience, but also greatly improves the processing efficiency.

C-2513Z是以全新的機械設計、精密的加工以及嚴密的裝配所呈現出來的、完全有別於傳統的視覺定位雕刻、裁切一體機。設備運動部分部分全部採用進口螺桿、滑軌、研磨級齒輪齒條、進口交流伺服電機，控制系統採用高速運動控制系統及TPS自自主研發的高速雕刻操作軟體，切割前無須第三方軟件編輯刀路，內置多種切割方式，設備具有運行速度快、穩定性好、切割清潔的特點，空程速度可達72 M/ MIN 加工進給速度8~15M/MIN，為您提供完全不一樣的工作體驗，大大提高了加工效率。

Strong vacuum cleaning system 強力吸塵系統



Due to unique design of vacuum cover and suction pipe, chips can be removed easily only by an ordinary vacuum cleaner with small power, which saves both space and energy.

獨有的吸塵罩集吸塵管路設計，仍使用普通小功率吸塵器，就可以輕鬆低將切削沫吸乾淨，保持檯面清潔，不僅暫地面積小，而且更加節能

Small Vision Positioning System 小视觉定位功能



Small vision positioning system can locate and cut accurately by shooting the registering marks on workpieces with the HD CCD camera. It can achieve searching the registering marks fast, positioning precisely and controllable repeated positioning accuracy within 0.1mm, so as to meet the requirements of users for high-precision nest cutting.

小视觉定位系统通过高清 CCD 摄像头拍摄工件上的 MARK 点来精準定位切割, 搜寻定位速度快、定位精準、重複定位精度可控範圍在 0.1mm 以內, 滿足用戶高精度套切要求。



Alignment System 主軸自動對刀系統

It adopts contact tool alignment device and tool alignment method with unique tool alignment system of TPS. Users should set material thickness, then directly operate the machine for carving milling and cutting without manual tool alignment, which has been completed automatically by software. It is safe and fast.

採用接觸式對刀儀對刀方式配合TPS獨家對刀系統,用戶在設置材料厚度後,在軟體中完成自動對刀操作後,就可以直接進行雕铣切割,無須人工對刀,安全快捷。



Design of Strong Vacuum Adsorption Platform 強力真空吸附工作台面

Designed with brand new adsorption tabletop piping system, partition setting and honeycomb tabletop covered with imported felt, it has advantages of perfect flatness, good permeability and strong suction, which effectively prevents workpieces from moving in process of cutting.

全新的吸附檯面管路和分區設置,使用表面覆蓋進口毛毯的蜂巢式檯面,台面平整度好,透風性好,吸力強勁,有效防止工件在切割過程中位移現象。

A wide variety of optional tool units as following 各種可選的切割工具項目



Ultra-frequency electric
oscillating tool
高頻電動震動刀



Ultra-frequency pneumatic
oscillating tool
高頻氣動震動刀



Non-oscillating
tool
拖刀工具



Kiss-cut Tool
半切刀工具



Multi-angle
V-Cuttool
多角度斜切刀工具