

## 電腦裁板機

## COMPUTERIZED PANEL SAW

High Precision!  
Easy To Operate!

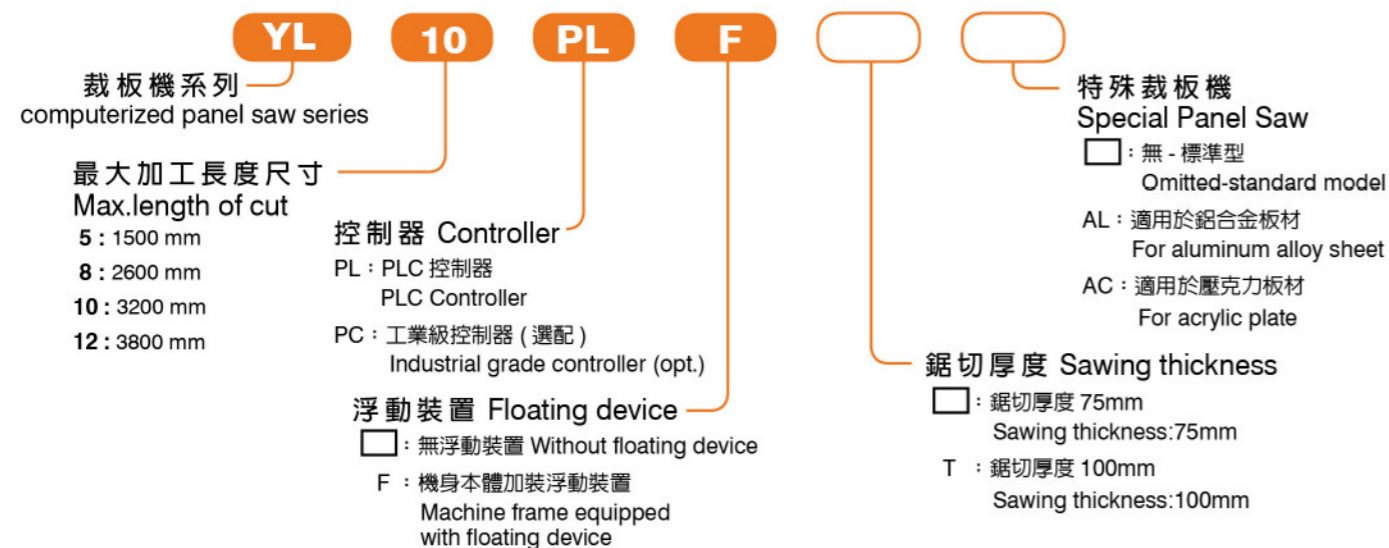
With features of high precision and high efficiency, computerized panel saw has been fully satisfied with each customer. The computerized panel saw is equipped with a well-planned computer control, making the panel cutting easier and more efficient.

## 精密！操作簡單！

以精密、高效率裁板深受使用者肯定的電腦裁板機，搭載完善規劃的電腦控制器。使裁板作業更簡易、更高效率。



## 型號示意說明 /



- Colorful touch-sensing screen.
- Saw carriage travels controlled through a frequency inverter for variable speed change .
- Panel feed mechanism is driven by a Japan Mitsubishi servo motor.
- Panel feed is transmitted through precision rack.
- Automatic lubrication system.

- 彩色觸控螢幕。
- 鋸座移動經變頻器控制，具無段變速。
- 送料座採日本三菱伺服馬達驅動。
- 送料經精密排齒傳動。
- 自動潤滑系統。

## 入料端

**Floating Table**

- The machine is equipped with 3 sets of floating tables for mounting in front of the machine.
- The floating table employs nylon balls floating principle, allowing panel to be moved without effort.
- Ruggedly constructed floating table features outstanding stability.
- The 3 sets of floating table uses a high-pressure blower, providing increased loading capacity.

**Collision Free Device for Piano-key Type Dust Guard**

With the special design of an additional sensing point, it can prevent wood panel from colliding against the piano-key type dust guard.

**浮動工作台**

- 本機裝置三組浮動台於機器前端。
- 浮動工作台採用尼龍珠浮動設計，使板料移動輕巧、不費力。
- 浮動工作台結構高剛性，高穩定性。
- 三組浮動工作台共用一個高壓送風機，可提升工作台荷重能力。

**琴鍵式防塵片不碰撞裝置**

特殊設計增加感應點，以防止板料撞擊琴鍵式防塵片。

**Auxiliary Operation Panel**

An auxiliary operation panel is mounted on the front of the second floating table, which provides added convenience for wood panel infeed cutting. The switches on the operation panel provide following functions:

- Single cutting mode
- Hold
- Automatic cutting mode
- Emergency

**輔助操作面板**

輔助操作面板安裝在此第二浮動台之前端，可提供版料入料裁切之方便性。面板開關功能包括：

- 單機裁切模式
- 暫停
- 自動裁切模式
- 緊急停止

**High Pressure Air Blower**

The three sets of floating tables of the machine employ only one set of high pressure air blower. It features high pressure and great air flow, providing powerful floating force to each floating table.

**高壓鼓風機**

本機之三組浮動工作台，共用一個高壓鼓風機，具有高壓、大風量特色。以提供浮動工作台強勁的浮力。

**Automatic Side Pressing Device for Panel**

The machine is equipped with two automatic side pressing rollers. Before performing panel cutting, the side pressing rollers will press the panel against the fence. This may ensure high squareness accuracy after cutting.

**自動靠料裝置**

本機附有兩支自動靠料滾輪。執行板料鋸切之前，靠料滾輪會先將板料推向導板靠齊。以確保鋸切後之直角度。

**Adjustable Pressure on Side Pusher**

Even when pressure is adjusted to 0.5 bar, smooth motion still can be maintained.

**靠料推桿壓力可調**

當壓力調至 0.5 bar 時，仍可保持動作的順暢性。

**Side Pressing Through Heavy Duty Worm Gear Reducer**

The side pressing mechanism is transmitted through a heavy duty gear reducer for increasing transmission torque, which leads to effortless and smooth side pressing motions.

**靠料機構附大型蝸輪減速傳動**

靠料機構經由蝸輪減速機傳動，可提升傳動扭力，使靠料動作更輕巧順暢。

**Side Press Positioning Calculated Through Encoder**

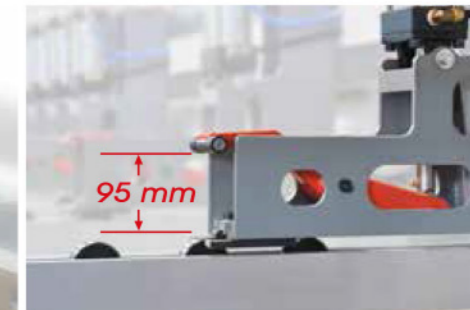
- Unlike the conventional sensor used for controlling side press positioning, this machine employs an encoder for calculating positioning during side press. It does not require repetitive home position return for calculating distance. This feature not only avoids an erroneous judgement while ensuring positioning accuracy.
- Automatic home position return when power on.
- Home position return is automatically performed after every 20 times of side pressing.

**譯碼器定位靠料演算**

- 屏除傳統感應式靠料定位，無須每次再次回歸原點再計算距離，本機採用譯碼器定位靠料演算，有效避免誤判情況，進而確保定位精度。
- 開機自動原點復歸。
- 每 20 次靠料，自動原點復歸。

**Panel Feeding Mechanism**

## 送料機構

**Suspending Gripper System**

- The grippers are suspension designed for increased smoothness in panel feeding.
- Maximum gripping thickness in 95 mm.
- Each gripper is activated by individual air cylinder with adjustable air pressure.
- The gripper is covered with rubber for convenient replacement and reduced consumable part cost.

**懸吊式夾料系統**

- 夾具為懸吊式設計，使推料更順暢。
- 最大夾料厚度 95 mm。
- 每支夾具採用個別氣壓缸致動。壓力為可調式。
- 夾爪為金屬包覆橡膠，方便使用者更換，降低耗材成本。



#### Air Reservoir for Panel Gripping System

The air reservoir provides a stable air supply to panel gripping system that makes panel gripping more secure.

#### Panel Feed Driven by Servo Motor

- The machine employs Japan Mitsubishi high performance servo motor for panel feed drive, allowing high accuracy positioning and fast movement.
- High torque output ensures excellent positioning accuracy even feeding heavy panels.

#### 夾料儲氣桶

提供穩定夾料氣壓壓力源，板料夾持更牢固。

#### 送料機構伺服馬達驅動

- 本機之送料機構採用日本三菱高性能伺服馬達驅動，具有定位精準、移動快速特性。
- 輸出扭力大，對於厚重板料，也具有極佳定位精度。



#### Adjustable Gripping Pressure

The pressure on each gripper is adjustable, which allows the operator to adjust the most proper pressure that avoids damage to panel surfaces.

#### 夾料壓力可調

工夾夾料壓力為可調式，讓操作者可調整到最適當的夾料壓力，以避免損傷板料表面。



#### Feed Transmitted Through Rack

- Precision racks are mounted at both sides of the panel feed mechanism to assure panel feed motion smoothness.
- Automatic lubrication to rack surfaces for increased smoothness of panel feed motion.

#### 送料排齒傳動機構

- 送料機構兩邊配置精密排齒 / 齒輪傳動，提供板料送料動作之順暢性。
- 排齒採用自動潤滑裝置，使送料動作更順暢。

#### Feed Driven Through Precision Gear

The machine uses Swiss made high precision rack to effectively upgrades dimensional accuracy and service life.

- For 20mm rack, feed speed is 35m/min (standard).
- For 25mm rack, feed speed is 53m/min (optional).

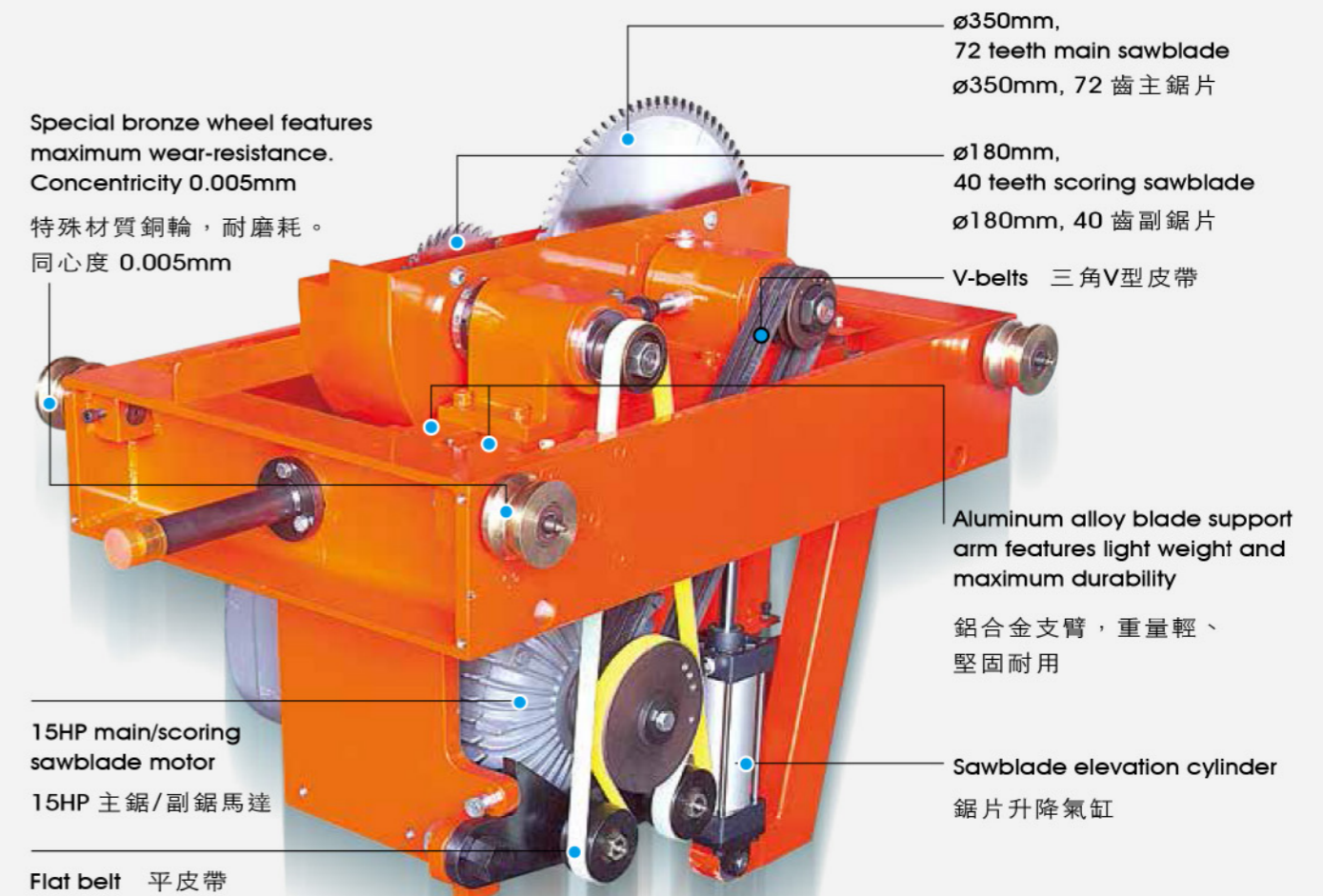
#### 送料傳動精密齒輪

採用瑞士高精度齒排以有效提升尺寸精準度及使用壽命。

- 齒排 20mm，送料速度 35m / 分 (標準)。
- 齒排 25mm，送料速度 53m / 分 (選購)。



## SAW CARRIAGE 鋸座



The saw carriage is a critical mechanism of a panel saw. emphasizes precision machining for each part on the saw carriage, which is then carefully assembled. Besides, each saw carriage is long-time tested before mounting on a panel saw.

#### Features of Saw Carriage:

- Saw carriage feed is transmitted through a steel wire.
- Variable feed speed of saw carriage.
- The scoring sawblade allows for vertical and right/left adjustment.
- The saw carriage stroke is controlled by computer setting.

鋸座是裁板機的核心機構。對於鋸座的每一個零組件施以精密加工，並以最嚴謹的態度組裝鋸座。經長時間測試後，再安裝到機器上。

#### 鋸座特性

- 鋸座進給採用鋼索傳動。
- 鋸座進給無段變速。
- 副鋸可作上下及左右調整。
- 鋸座行程，採用電腦設定參數，自動演算控制鋸切行程。

## HUMAN MACHINE INTERFACING CONTROL

### 人機介面控制器 (標準配備)

The personified human-machine interfacing control is designed with operational convenience in mind, including sizes editing, cutting motions control and monitoring, etc. This makes panel cutting operations easy and efficient.

computerized panel saw is equipped with a multi-function human-machine interfacing control.

All displays are carefully planned, that dramatically increases convenience of operation. In addition, the error display allows for increased convenience in maintenance.

人性化設計的人機介面控制器，無論是尺寸編輯，裁切動作操控，或動作監視等功能，都是從使用者角度思考。使裁板作業更簡易、更有效率。

電腦裁板機，採用功能完善的彩色人機介面控制。所有畫面經過精心規劃，除了提供操作者最簡易的操作，並且具有異常顯示，大幅提升維修的方便性。



#### Variable Feed Speed of Saw Carriage

- The saw carriage feed is driven by a 2HP motor combined with frequency inverter control, allowing for variable speed change. This makes the machine suitable for cutting various materials of panel.
- The saw carriage feed speed can be adjusted by turning a speed regulation knob, provided on the control panel.

#### 鋸座進給無段變速

- 鋸座進給採用 2HP 馬達驅動，再經變頻器控制，提供無段變速。適合各種材質之板料裁切。
- 鋸座進給速度可由操作面板上之旋鈕調整。



#### Germany FESTO Pneumatic Parts

The pneumatic systems used on this series of machines, such as pressure regulation valves, solenoid valves, air circuit board and filter / regulator / lubricator combination unit, are world-famous Germany FESTO pneumatic parts. Hence, smooth pneumatic motions and long parts life can be obtained.

#### 德國 FESTO 氣壓控制元件

全系列機種之氣壓系統所使用之調壓閥、電磁閥、風路板、三點組合，均使用世界名牌 - 德國 FESTO 品牌之氣壓元件，確保氣壓動作之順暢及元件使用壽命。

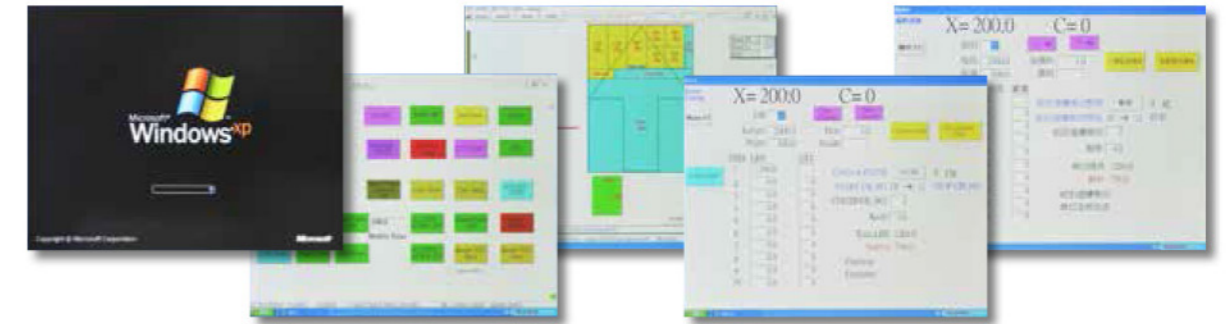
## OPTIONAL EQUIPMENT

### 選購

## INDUSTRIAL GRADE PC COMPUTER

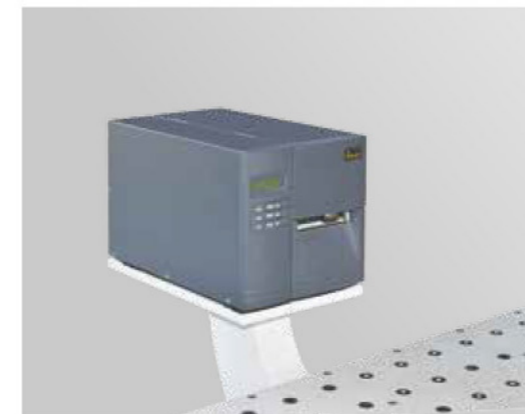
### PC 工業級電腦

Colorful Touch Screen! 彩色觸控螢幕!  
Easy Operation! 操作最簡易!



- Industrial grade touch-screen.
- Machine motions operation interface.
- Manual pattern layout editing on PC.
- Cutting pattern preview.
- HMI editing panel cutting.
- Single cut made.
- Remote monitoring.

- 工業級觸碰螢幕
- 機械動作操作介面。
- PC 手動編程排版。
- 裁板圖示預覽。
- 人機編輯裁板。
- 簡易單刀裁板。
- 遠端監控。

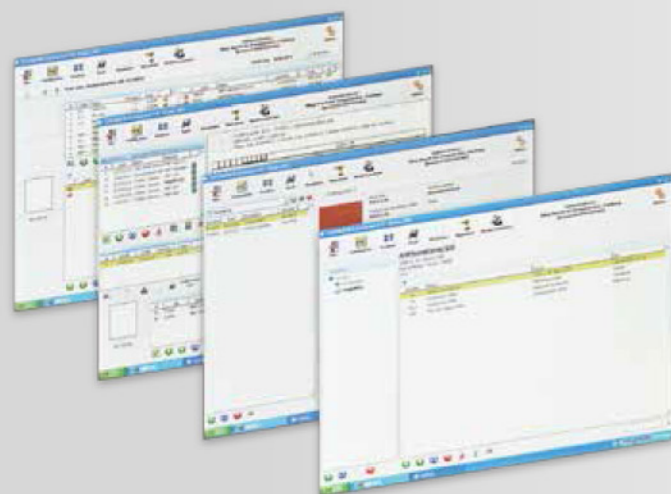


#### Bar Code Printer (Optional)

- Applicable for printing cut sizes, customer names and product names.
- To support online management of computer.
- Customer should purchase scanner.

#### 條碼機 (選購)

- 條碼機適用於列印裁切尺寸、客戶名稱、產品名稱。
- 支援電腦連線管理。
- 掃描器客戶需自行購買。



### European Automatic Pattern Layout System (Optional)

- Inventory quantity and panel information.
- Pattern layout cutting.
- Automatic calculation for pattern layout.
- Finished product module file.
- Delivery order record.
- Production order memorandum.
- Check of finished job sheet.

### 歐洲自動排版系統(選購)

- 庫存量、板類資訊。
- 工作排單裁切。
- 自動排版演算。
- 成品模組建檔。
- 裁切出貨單記錄。
- 生產單號備忘錄。
- 完成工單紀錄查詢。

### Machine Table Floating (Optional)

- With special design of floating function on the machine table, it may prevent panel surfaces from scratching for panels laminated with decorative boards at both sides. Another benefit is to make panel feed more smoothly.
- Equipped with a 3HP high pressure air blower.

### 機身主體台面浮動(選購)

- 特殊設計的機身台面浮動功能，針對雙面貼飾板之板料，有效避免薄片表面刮傷。並切送料更輕巧。
- 搭配 3HP 高壓鼓風機。

### Patented Optical Grating (Optional)

- The exclusively designed optical grating has been patented in R.O.C with patent number M454307.
- The optical grating is mounted at the end of the floating table. In case a personnel is sensed by the light beam, the machine stops automatically. It provides safety protection for the operator when removing waste materials.

### 專利感應光柵(選購)

- 獨特設計之感應光柵，榮獲中華民國專利 M454307。
- 感應光柵安裝在浮動台之後端，當操作者被光束感應到時，機器即自動停機，以確保操作者在移除廢料時之安全性。

### Laser Unit (Optional)

This machine is available to equip with an laser unit for indicating cutting path.

### 鐳射鋸路顯示(選購)

本機可加裝鐳射，可精準的指示鋸路位置。

## SPECIFICATIONS 規格

MODEL	型式	YL-5PL	YL-8PL	YL-10PL	YL-12PL
Cutting length	鋸切長度	1500 mm	2600 mm	3200 mm	3800 mm
Cutting thickness	鋸切厚度	75 mm	75 mm	75 mm	75 mm
<b>Main sawblade 主鋸片</b>					
Blade diameter	鋸片直徑	ø350 mm	ø350 mm	ø350 mm	ø350 mm
Arbor diameter	鋸軸直徑	ø1"	ø1"	ø1"	ø1"
Speed	鋸軸轉速	4200 RPM	4200 RPM	4200 R PM	4200 RPM
<b>Scoring sawblade 副鋸片</b>					
Blade diameter	鋸片直徑	ø180 mm	ø180 mm	ø180 mm	ø180 mm
Arbor diameter	鋸軸直徑	ø1"	ø1"	ø1"	ø1"
Speed	鋸軸轉速	6500 RPM	6500 RPM	6500 RPM	6500 RPM
Feed forward speed	前進行程速度	9~37 M/min	9~37 M/min	9~37 M/min	9~37 M/min
Retract speed	後退速度	67 M/min	67 M/min	67 M/min	67 M/min
Main sawblade motor	鋸片驅動馬達	15 HP (OP 18、20HP)	15 HP (OP 18、20HP)	15 HP (OP 18、20HP)	15 HP (OP 18、20HP)
Saw carriage drive motor	鋸座驅動馬達	2 HP	2 HP	2 HP	2 HP
High pressure blower motor	高壓送風機馬達	3 HP	3 HP	3 HP	3 HP
Number of gripper unit	夾料座數	5 PCS	7 PCS	8 PCS	10 PCS
Number of floating table	浮動工作台數	2 PCS	3 PCS	3 PCS	4 PCS
Automatic feed system	自動送料系統	1 kw ( AC servo)	1 kw ( AC servo)	1 kw ( AC servo)	1 kw ( AC servo)
Automatic panel feed speed	自動送料速度	35 M/min	35 M/min	35 M/min	35 M/min
Net / Gross weight	淨重 / 毛重		4220 / 4750 kg	4860 / 5490 kg	5500 / 6230 kg
Machine dimensions(LxWxH)	機械尺寸 (長x寬x高)		5440x5588x1645 mm	5973x6198x1645 mm	6582x6807x1645 mm
Packing dimensions	裝箱尺寸	20' container	20' container	20' container	40' container

### Standard Equipment

- PLC controller
- Emergency rope
- Emergency stop button at back feed area
- Auxiliary operation panel
- Safety stop cover for sawblade replacement
- Infeed floating table
- Feed rate:35m/min
- Automatic slideways lubrication system
- Adjustable gripping pressure
- Air reservoir for panel gripping system
- Linear guideway for side pressing
- Automatic home position return for positioning
- Adjustable pressure for side pusher
- Worm gear reducer
- Main sawblade motor 15HP. Thickness of cut 75mm.
- Main sawblade diameter: ø350mm
- Spindle transmission belt: 3V belt ( 3V 450×3 pcs )

### 標準備配

- PLC 控制器
- 緊急停機拉繩
- 後送料區緊急停機按鈕
- 輔助操作面板
- 鋸片更換安全停機護蓋
- 浮動入料台
- 送料速度：35 M/min
- 滑道自動潤滑系統
- 夾料爪壓力可調
- 夾料儲壓筒
- 靠料行程採線性滑軌
- 定位自動原點覆歸
- 側靠料推桿壓力可調
- 蝸輪減速機構
- 主鋸馬力 15HP 鋸切厚度 75mm
- 主鋸片直徑：ø350mm
- 主軸傳動皮帶：3V 皮帶 (3V 450×3 條)

### Optional Equipment

- Industrial grade PC computer controller
- Remote monitoring
- European pattern layout system for automatic pattern layout
- Bar code printer for production management
- Optical grating for safety
- Machine table floating device ( incl. high pressure blower )
- Hydraulic lifting platform
- Feed rate: 53m/min.( rack 25mm )
- 18HP,thickness of cut 100mm
- Maximum cutting horsepower 20HP
- Main sawblade diameter: ø405mm
- Timing belts
- Laser unit for indicating cutting path
- Automatic feed system 1.5kw ( AC servo)

### 選購配備

- PC 工業電腦控制器
- 遠端監控
- 自動排版、採用歐洲自動排版系統
- 生產管理條碼機
- 安全感應光柵
- 機身主體浮動裝置 ( 含高壓鼓風機 )
- 油壓升降工作台
- 送料速度：53 M/min( 齒排 25mm)
- 18HP 鋸切厚度 100mm
- 最大鋸切馬力 20HP
- 主鋸片直徑：ø405mm
- 時規皮帶
- 雷射鋸路顯示
- 自動送料系統 1.5 kw ( AC servo)

• All specifications, dimensions and design characteristics are subject to change without prior notice.

• 本公司對產品不斷研究改良，機械規格及設計特性若有變更，恕不另行通知。