



Computerized Inverse Plating
Flat Knitting Machine

PAI LUNG MACHINERY MILL CO.,LTD.
No.8 Ding Ping Rd., Ruei-Fang Industrial Park, Ruei-Fang Dist., New Taipei City, Taiwan
台灣新北市瑞芳區瑞芳工業區頂坪路8號
TEL:886-2-24978888 FAX:886-2-24965666
www.pailung.com.tw

THE FABRIC
OF INNOVATION

PAI LUNG



Series

Computerized Inverse Plating
Flat Knitting Machine

電腦疊紗橫編針織機

PLF-IP132

Product Introduction



產品 介紹

PLF-
IS132

Computerized inverse plating flat knitting machine

Inverse plating, one of special single jersey jacquard technology, used to be knitted by special handwork or high value intarsia machine. Now, Pai Lung develops a new generation of model PLF-IP132 model to make plating jacquard with most economic effect in production.

The yarn plating change technology is interacted by our unique cam work and right time yarn carrier's movement. With instant cooperation of digital needle selection, two different color or materials yarns could be swapped accurately on the face side to forming single jersey jacquard patterns, and it can presents better close-knit in colors edge than other knitting skills.

The application of plating jacquard technology in jersey can replace some of simple color intarsia, finer gauge of double jersey jacquard, links-links plating, and reduce certain after treatment like in some of embroidery or printing processes. Designers can setup inverse plating jersey with blurred color picture, simple but color contrast logo, with opposite color on garment front and back face, or two color cable structure, etc.

We believe, with plating potential, Pai Lung's PLF-IP132 is going to create unprecedented performance and a new design solution in flat bed knitting market from now on.



電腦疊紗橫編針織機

翻轉疊紗是一種相當特殊的單面提花織法，之前只出現於人工加工技法，或附加在高規格功能之引塔夏設備。而佰龍研發做出專屬功能的機種PLF-IP132，使疊紗提花在針織發展上，具備真正的生產經濟效益。

此種技法運用相對應的山角及紗嘴交互作用，將兩條不同顏色或性質的紗線，依據電腦選針之圖形設定，進行織環成圈及指定紗線之翻轉變換，紗線翻轉於交織邊界上表現上更具順暢平滑，不需其他技法或組織協助，使單面針織提花的呈現更得以一氣呵成，同時於織造背面呈現完全鏡射及顏色相反的效果。而搭配移圈或是絞花等組織，得以呈現出前所未有的色彩對應變化。

運用異色或異質紗線對比搭配，在單面細針距上，翻轉疊紗可以取代現有部分的簡易色彩引塔夏，雙色提花，正反目疊紗組織，刺繡或是印花等技法。設計師可以運用其特性，發展出模糊混搭色彩的風格織物，或是顏色對比明顯的幾何提花，或是創造立體異色的組織圖騰。

佰龍翻轉疊紗之技術發展，潛力無窮，確信可為針織設計發展提供全新的境界。





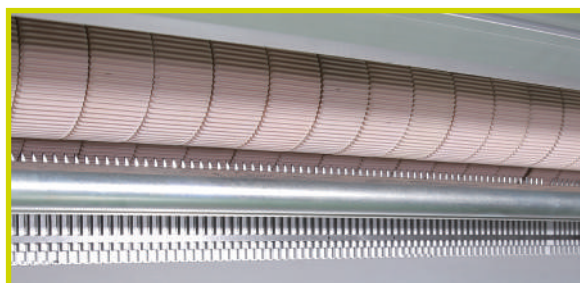
1.Yarn carrier
Thinner sized carrier for plating knitting.
紗嘴
本機採用適形薄片紗嘴,利於鍍圈織造。



2.Electronic yarn tension control
Four color composition for plating as standard. Plating yarns are controlled by electronic side tension device. More color operation can be added in optional.
側邊送紗
基本提供2組共四色組合不同疊紗組,紗線由儲紗控制器精準控制張力。更多色系之運用可經由選購取得。



3.Pai Lung Design system
It is with full functions in pattern design, edition, and programming, and can offer designer page and technical page change for quick check.
佰龍繪圖系統
具備完整的編輯繪圖的多功能運用,可提供翻轉疊紗設定,設計及工藝圖畫面轉換。



4.Sub/ main roller and combing system
for complete take down work.
主副羅拉及起底裝置
提供完整下布程序。

5.Piezo electronic actuator
for better needle selection and speed performance.
陶瓷撥片選針系統
提升選針效率及機台速度。

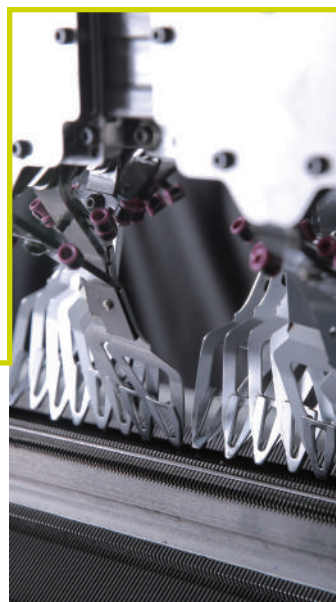
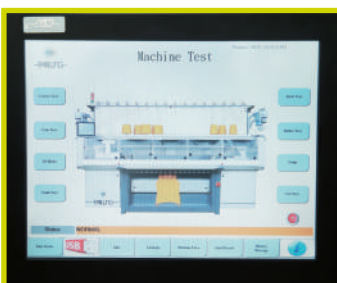


6.Sinker cam timing adjustment
trim device depends on yarn quality.

信克山角時序調整系統
依紗線特性提供微調功能。

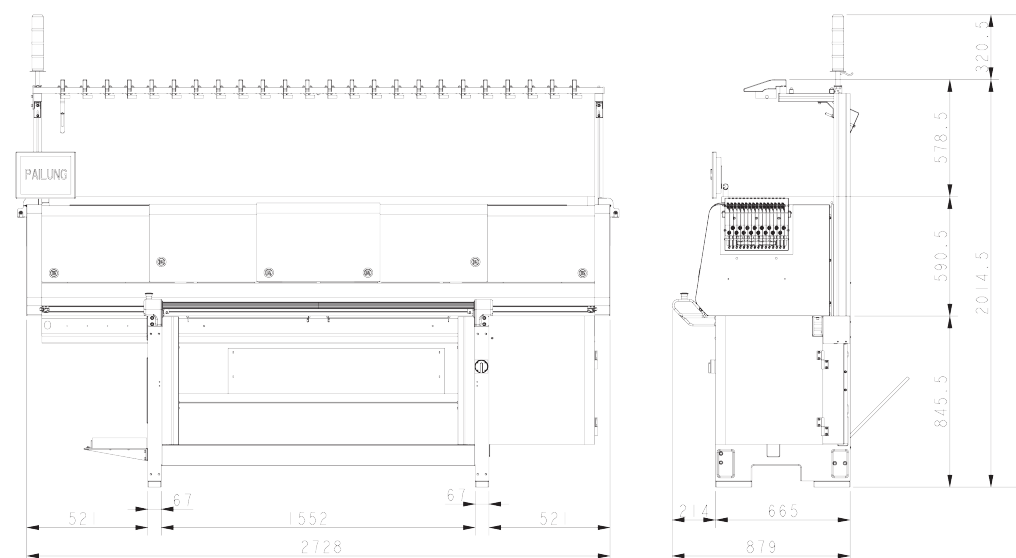


7.New full color LCD touch panel
more friendly and easy control interface.
全新彩觸控式操作控制畫面
提供更優化及更簡易操作介面。



8.Optional intarsia carrier
In some pattern for more color application.

引塔夏紗嘴裝置
在某些色彩圖案需運用引塔夏紗嘴,可依選配裝置增加。



Dimensions: (unit: mm) 尺寸圖:(單位:公厘)
Net weight: 850 Kg 毛重: 850 公斤

針距範圍	12G、14G、16G、18G
織造寬度	52英寸(132cm)
機頭系統	單機頭雙系統設計
選針系統	特殊陶瓷多段全提花選針。
編織密度(度目)	線圈密度由步進馬達所控制，具備256段可編程度目值，左右系統獨立。
編織速度	最高1.2米/秒，編織速度因針速和編織條件而有不同。多段可調節速度，並具備16段可編程序速度。
搖床	採高轉速伺服馬達搭配精密滾珠螺桿傳動，在左右各1英寸範圍內之搖床位移皆由程式控制，可於針床任何位置搖1/2針和1/4針並具備個別微調位移之功能。
沉降片	專用沉降片
傳動方式	高強度正時皮帶配合伺服馬達往復運作。
自動夾切紗組	左邊一組，一組紗剪組內包括兩支紗夾與一支紗剪。有效節省紗線，控制紗尾長度
紗嘴	單側9支紗嘴
導軌	配置4支導軌
多段可調式過紗架	左邊16支設計
上段張力天線	16個張力天線
送紗裝置	左側式積極送紗裝置4只
密閉式工作空間	全機覆蓋以保護人員並兼防塵及減低噪音。
緊急自鎖開關	機台具備1只，遇緊急可立即按下停車鈕，切斷電源
自停裝置	斷紗，紗結，紗線張力改變，斷針，落布，倒捲，撞針，搖床異位，機頭異位，程式錯誤等皆會使機台設備自動停止。
三色操作警示燈	以不同燈色顯示機台狀態。
起底板裝置	操作簡易，不易起底失敗，配合夾切紗模組，加快生產速度，具備32段可編程起抵拉力值。
捲布系統	主羅拉與副羅拉 256段電腦控制，全自動打開和關合，具備32段可編程捲布拉力值。
系統顯示	無按鍵設計，採12.1"觸碰式彩色背光液晶面板，具1024X768高解析度，人因工程介面設計，畫面操作簡單易
語言種類	中文/英文，可直接切換。可提供其它語系。
花型輸入	可使用USB 2.0
軟件	Kniteditor
不斷電系統(UPS)	突然停電時提供備用電源進行處置
規格	單相交流電220V±10%

選配：

- 右邊夾切紗裝置
- 右邊紗嘴
- 引塔夏紗嘴及繪圖系統
- 積極送紗裝置
- 基本機種轉換

※以上規格配備若有變更否，無法先行通知，仍以實體為準

Gauge	12G, 14G, 16G, 18G
Knitting Width	52" (132cm)
Carriage/System	Single carriage double systems
Needle Selection	Full-Jacquard Piezo needle selection
Stitch Density	Stitch density controlled by stepping motors with adjustable levels which can be stored in 256 density group in each knitting system.
Knitting Speed	Max 1.2m/sec. Knitting speed varies according to gauge and knitting conditions. Variably adjustable speed levels which can be stored in 16 speed groups
Racking System.	Servo motor with ball screw racking system. Max 1-inch racking left and right each. 1/2 and 1/4 pitch also available from any position.
Sinker System	Movable sinker.
Transmission System	Belt driven transmission system via AC servo motor; No lubrication needed
Yarn Cutter and Grippers System	1 set of one yarn cutter and two grippers on left side
Yarn Carriers	Total 9 yarn carriers.
Trail	4 trails
Side Tension	Adjustable side tension- 16 units/ left side
Top Tension	Top tension devices - 16 units
Positive Feeding Device	Electronic stitch control feeder 4 units on left side.
Covered working	Full safety cover for protecting user and dust-proofing.
Emergency Stop	Emergency stop button on one side.
Auto-Stop	Break yarn, knot yarn, yarn tension changes, needle broken, fabric drop, fabric rewind, improper position of racking, improper position of carriage, and programming error, etc will automatically stop the machine.
3 Colors Warning Lights	Green light- Normal operations Yellow light- fabric take down completed. Red light- Abnormal stop.
Setup Combs System	Setup Comb with special setup needles. Setup tensions are stored in 32 tension groups
Takedown System	Main roller and sub roller. 256 level of adjustable tensions can be stored in 32 tension groups.
Control Display	12.1" Back-lit LCD Touch Panel. 1024x768 high resolution
Language	Language available in Traditional Chinese, Simple Chinese and English. Other language is potential.
Data Input	USB 2.0
Pattern design	Kniteditor
UPS	Power supply for resuming knitting after power failure
Input	One-phase AC power 220V±10%

Options:

- Right side yarn cutter and gripper
- Right side tension
- Right yarn carriers
- Intarsia carrier and design system
- Normal two system flat knit conversion

※Above equipment maybe changed without notice.