

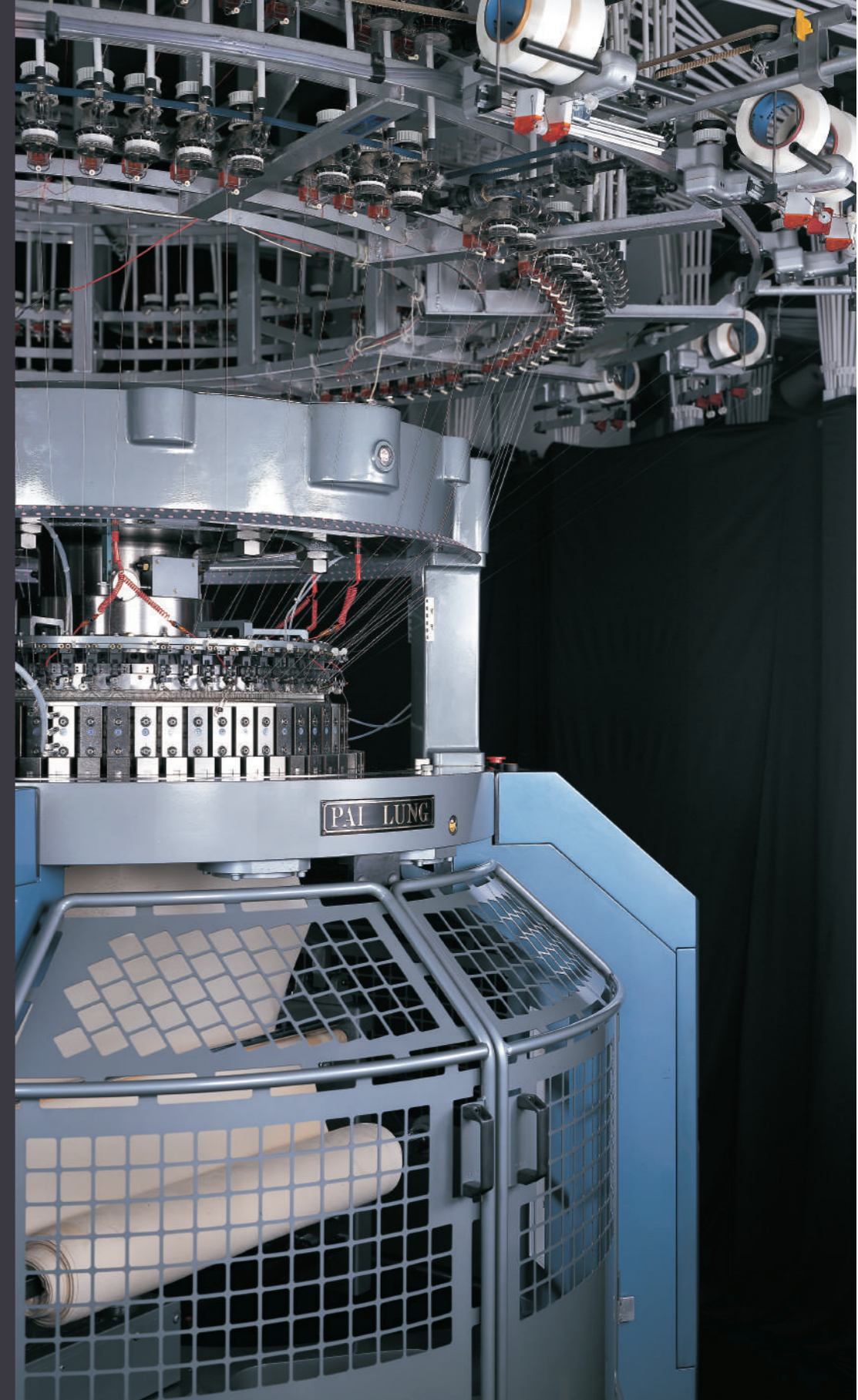


Inter-Rib Dual Function  
Circular Knitting Machine

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

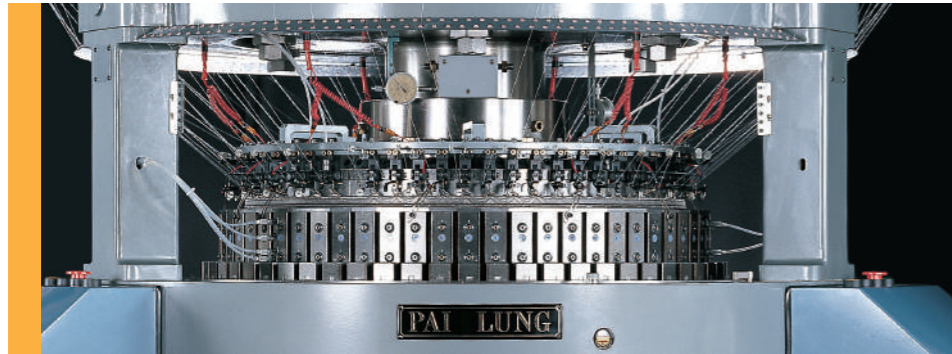
PAI LUNG



**K**nitel Series

**Double Knit**  
Inter-Rib Dual Function  
Circular Knitting Machine  
多功能雙面/羅紋圓筒針織機

PL-KR



## Products Introduction

Convenience, practicality, efficiency, versatility and above all, quality are the hallmarks of Pai Lung's Knitel rib/interlock series. The superbly refined and engineered models will deliver all that is promised.

Pai Lung's Knited rib/interlock series is available in several stunning grades; from the superbly equipped PL-KR1.5B to top output of the range PL-KR2.5B. Body size models like the PL-KRA are popular on underwear and leisure suit production.

The convenience of Knitel is instantly recognizable, thanks to full function equipment that include all types of cams for fabric design demand for quick cylinder exchange in inter-rib model ready pull-out yarn carriers on one ring for quick adjustment, and refined rib delay timing knit cams designed for fabric elasticity, especially in Lycra plating. Inside the oil bathed frame detailing has been improved and structured for higher speed operation.

The Knitel rib/interlock design reflects the modern, innovative era which customer can see. It's engineering is sophisticated enough to deliver the performance, efficiency and output that the knitting industry demands. It's specification is outstanding enough to leave it's other competitors trailing.

Yarn materials: cotton,blend,synthetic fibers & elastics plating.

### Specification of machine models

Model	Machine name	(Dial+Cylinder) Track	Gauge
PL-KRA	Rib Machine	(1+1)~(2+2)	12G~22G*
PL-KRDA	Rib/Interlock	(2+2)~(2+4)	12G~22G~28G
PL-KR1.5B	Rib/Interlock	(1+1)~(2+2)~(2+4)	12G~22G~28G**
PL-KR2B	Rib/Interlock	(2+2)~(2+4)	10G~22G~28G***
PL-KR2.5B	Rib/Interlock	(2+2)~(2+4)	10G~22G~28G

\* PL-KRA 7"~12" is 1X1 track and only 12G~18G

\*\* PL-KR1.5B 13"~15" max to 20G

\*\*\* PL-KR2B interlock structure max to 36G

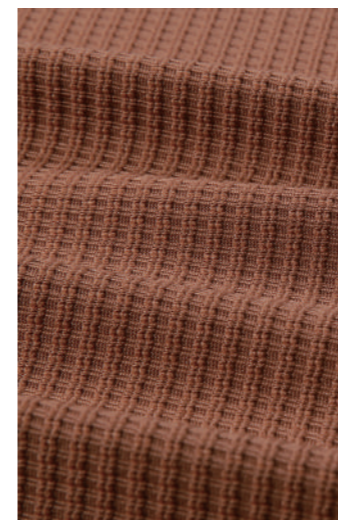
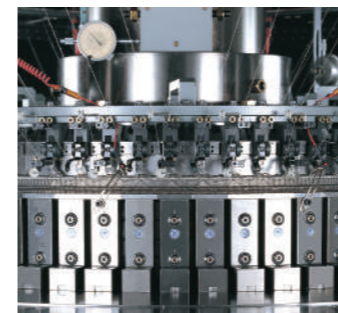
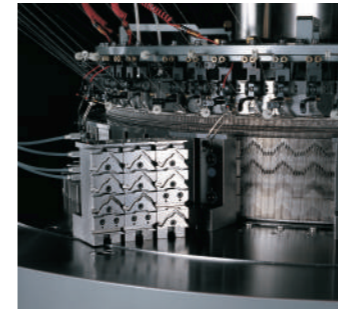
PL-KR2B is a (2+4) tracks circular knitting model with rib(12~22G)/interlock(20~28G) dual function. It is able to produce basic rib structure such as 1X1, 2X2 rib, and elastic yarn plating added. More applications including bubble wrinkles, pique, interlock, double pique, Miland rib thermal rib, honey cone half Cardigan, full Cardigan, etc.

PL-KR2.5B with (2+4) cam track is the latest model with higher feeds to reach the highest rib & interlock production

KRA is the (2+2) track rib model with the ability of 1X1 and 2X2 rib (PL-KRA 7"~12" is (1+1) track model).

PL-KR1.5B dual function model can offer (2+2) track rib or (1+1) track in the small diameter model. Its feeder system can make a better elastic touch in fabrics.

Pai Lung's PL-KRA, PL-KR2B, and PL-KR2.5B above 26" range model, regarding to market demand the dial knit cam can be specially supplied with the divided cams in raise & stitch type.



## 產品介紹

### PL-KR

簡易操作、變化性快、實用性強、產量提升，仍不足以稱讚佰龍羅紋機系列產品針對市場不斷的變化，時時汲取最新訊息，以不斷精進的設計與製作方式造就今日高品質的佰龍產品，持續地貢獻業界生產。

在全系列Kritel 羅紋系列上，佰龍注重織物產出之品質。在操作上，採用整組銀紗舌片圈設計，提供整體舌片水平時序調整，每組舌片可以向外翻出，便於穿紗。而在強調羅紋布性上，依據提供機型不同，成圈三角延遲最高可達5mm延遲收針，搭配氨輪添加，更有利於布面之彈性。而在多用途使用上，PL-KR2B機型則可以搭配針筒延遲及同收三角，有利於市場需求改變時，只需短時間更換較高針數針筒，有效提供組織變換。機台上下傳動主齒輪採用浸油式潤滑設計，降低摩擦，提升運轉功率。PL-KR2.5B高路數羅紋系列，強調高產量產出。而精心設計之三角山形軌跡更加強布面品質，保持機台運轉輕盈。另外可搭配佰龍所擁有之雙面機加沉降環功能，達到下布更簡易，反應處理時間上更快。

佰龍羅紋機尺寸範圍廣泛，包含小尺寸7"之1X1 機種；中小型連續尺寸13"~24"機種提供了大量內衣、休閒裝專用的生產；而一般標準30"以上機型更廣為業界使用。對具備大型染整設備業者，更可提供高腳大捲裝羅紋機以增加其經濟效益。

佰龍相信所有的機台功能及品質絕非一蹴可躋，而是來自我不斷的演化進步。佰龍研發堅強的研發後盾，提供業界尋找生產最佳化的選擇。

### 機種規格衍生及織物特性

機器型號	機型名稱	上下跑道數	針距範圍
PL-KRA	二段羅紋針織機	(1+1)~(2+2)	12G~22G*
PL-KRDA	二段羅紋/雙面針織機	(2+2)~(2+4)	12G~22G~28G
PL-KR1.5B	多功能羅紋/雙面針織機	(1+1)~(2+2)~(2+4)	12G~22G~28G**
PL-KR2B	多功能羅紋/雙面針織機	(2+2)~(2+4)	10G~22G~28G***
PL-KR2.5B	多功能羅紋/雙面針織機	(2+2)~(2+4)	10G~22G~28G

可適織紗種包括棉、絲、及各種化纖，混紡，人造毛料，搭配氨輪添加功能。

\* PL-KRA 可提供 7"~12" (1+1) track 12G~18G 範圍

\*\* PL-KR1.5B 13"~15" 最高針數為20G

\*\*\*PL-KR2B 改為棉毛最高針數為28G

PL-KR2B 機台具備2+4段跑道，為棉毛(20G~28G)及羅紋(12~22G)雙用途，可以織造基本具備彈性之1X1, 2X2 羅紋布，及含氨綸之高彈性羅紋布。機台可以依據需求搭配針筒同步及延遲成圈三角、集圈、浮線三角，配合機台針筒針距變化，持一般羅紋及棉毛組之外，更可提供米蘭諾、暖羅紋、蜂窩組織、十字布、樓梯布、健康布、皺皺布、半疋編及疋編組織。

PL-KR2.5B 則提供高產量羅紋布生產之新選項。

PL-KR1.5B 為較低路數羅紋機，適用於在1X1 及 2X2 織造彈性較佳之羅紋組織布。

PL-KRA 為上2 下2 段機種，可以織造標準 1X1 及 2X2 羅紋布。另提供上1下1 段機種。

佰龍PL-KRA、PL-KR2B在26"以上機型，可依據客戶需求提供整塊及集圈三角，或分開出、收針三角以供調整需求。

# Applications

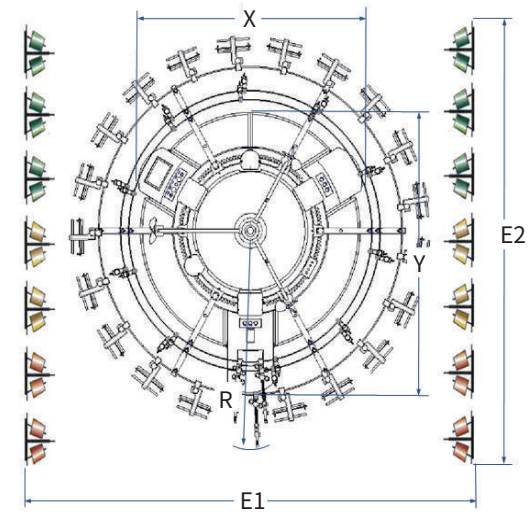
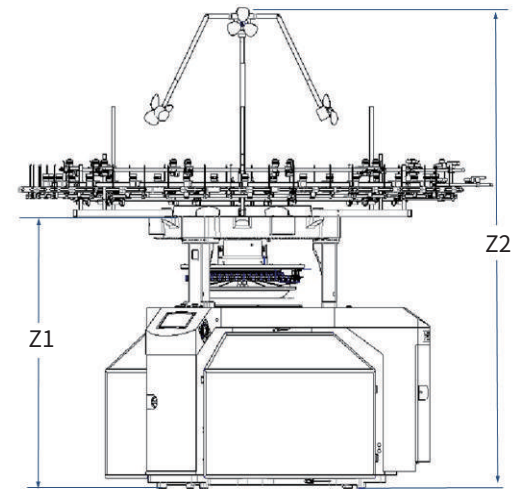
**K** Pai Lung K-series  
Double Knit



Feeder No. 口數

Dia	PL-KRA	PL-KRDA	PL-KR1.5B	PL-KR2B	PL-KR2.5B
5"	9F*				
6"	10F*				
7"	12F*				
8"	14F				
9"	16F*				
10"	18F*				
11"	22F	22F	14F	22F	
12"	24F	24F	16F	24F	
13"	26F	26F	18F	26F	30F
14"	28F	28F	20F	28F	32F
15"	30F	30F	22F	30F	36F
16"	32F	32F	24F	32F	38F
17"	34F	34F	26F	34F	40F
18"	36F	36F	28F	36F	42F
19"	38F	38F	30F	38F	44F
20"	40F	40F	30F	40F	48F
21"	42F	42F	32F	42F	50F
22"	44F	44F	34F	44F	52F
23"	46F	46F	36F	46F	54F
24"	48F	48F	38F	48F	56F
26"	52F	52F	42F	52F	62F
28"	56F	56F	44F	56F	66F
30"	60F	60F	48F	60F	72F
32"	64F	64F	52F	64F	76F
34"	72F	72F	54F	72F	82F
36"	72F	72F	58F	72F	86F
38"	76F	76F	60F	76F	92F
40"	80F	80F	64F	80F	96F

Dimensions 機台外觀尺寸圖















TF	X	Y	R	Z1	Z2	E1	E2
4"~12"	1530	2000	1179.5	1957	3329.3	1915	2559
13"~18"	1815	2040	1482	1824.05	3210.8	2630	3164
19"~24"	1950	2190	1554.5	1824.05	3210.8	3309	3345
25"~30"	1885	2200	1617	1849.5	3301.8	3434	4060
31"~34"	2035	2370	1682	1849.5	3301.8	3564	4775
35"~40"	2177	2531	1762	1849.5	3301.8	3724	5490
41"~46"	2260	2665	1878	2049.5	3501.8	3956	6205
47"~52"	2400	3050	1993	2049.5	3501.8	4186	6920
53"~58"	2900	3640	2155	2312.5	3670	4510	7635
59"~64"	3300	3530	2700	2312.5	3670	5600	8350

- Above specification may be changed without notice.
- Investigating management software does not include factory layout.
- 以上規格配備若有變更，無法先行通知，仍以實體為準。
- 客戶需自行購買配合整廠管理所需之配線。

# Dimensional drawings

# Basic Configuration

	標準配備	選項配備
 控制介面	<ul style="list-style-type: none"> <li>- 數據顯示控制面板</li> <li>• 三班制工作計數, 機台轉速, 布量預控設定</li> <li>• 異常停機原因顯示</li> <li>• 一般操作及緊急停止按鈕</li> </ul>	<ul style="list-style-type: none"> <li>- 整合式觸控功能液晶螢幕</li> <li>• 完整提供所有操作狀況及數據顯示</li> <li>• RS-485 介面可結合監控系統POMS</li> <li>• Decotex 連接埠</li> </ul>
 電源	<ul style="list-style-type: none"> <li>- 380V, 50/60 Hz</li> <li>- 2.2Kw/3Hp - 3.7Kw/5Hp</li> <li>- 5.5Kw/7.5Hp - 7.3Kw/10Hp</li> <li>- 變頻傳動控制裝置</li> </ul>	<ul style="list-style-type: none"> <li>- 220V, 50/60Hz</li> <li>- 415~460V, 50/60Hz</li> </ul>
 捲布裝置	<ul style="list-style-type: none"> <li>- 佰龍機械式變速捲布機</li> <li>- 標準捲布直徑 17"</li> <li>- 均衡張力方形撐布架裝置</li> </ul>	<ul style="list-style-type: none"> <li>- 馬達式捲布機 - 開幅剖布/捲布裝置</li> <li>- 摺布/捲布兩用捲取機</li> <li>- 泳立機械式變速捲布機</li> <li>- 高捲裝機身捲布直徑 36"</li> <li>- 高捲裝機身捲布直徑 45"</li> </ul>
 織針	<ul style="list-style-type: none"> <li>- 開幅剖布/捲布裝置 PL-KRA 及 PL-KR2B 配備 2 段針盤短織針及 2 段針筒織針</li> </ul>	<ul style="list-style-type: none"> <li>- 開幅剖布/捲布裝置開幅剖布/捲布裝置開幅剖布/捲布裝置 PL-KRA 配備 1 段針盤短織及 1 段針筒織針</li> <li>- PL-KR2B 配備 2 段針盤短織針及 4 段針筒長織針</li> </ul>
 三角配置	<ul style="list-style-type: none"> <li>- PL-KRA 及 PL-KR2B 羅紋組織(2 段針盤及 2 段針筒延遲三角)</li> <li>- 三角以合銷固定, 定位精準</li> <li>- 密閉型三角設計</li> <li>- 浮線三角固定於滑塊上</li> <li>- 單塊式針盤成圈三角</li> <li>- 依機種提供羅紋三角 17G 以下 /18G 以上版本不同</li> </ul>	<ul style="list-style-type: none"> <li>- PL-KRA 羅紋組織(1 段針盤及 1 段針筒延遲三角)</li> <li>- PL-KR2B 羅紋及棉毛組織(2 段針盤及 2~4 段針筒三角)</li> <li>- 依客戶需求提供成圈-集團</li> <li>- 浮線三角配置 -厚布用成圈三角</li> <li>- 依機種及尺寸提供雙塊式針盤成圈三角</li> <li>- 依機種及尺寸提供浮花三角</li> <li>- 浮線三角固定於三角座上</li> </ul>
 儲紗裝置	<ul style="list-style-type: none"> <li>- 積極式儲紗送紗器 MPF-20L1</li> <li>- 儲紗器環 2 圈+1 組預備鐵圈</li> </ul>	<ul style="list-style-type: none"> <li>- 積極式儲紗送紗器 MPF-20P1 / NEO Knit</li> <li>- 氨輪輸紗器 MER3</li> <li>- 依客戶需求提供其他形式儲紗裝置</li> </ul>
 機架	<ul style="list-style-type: none"> <li>- 佰龍 K 系列機盤</li> <li>- 浸油潤滑四鋼線軸承</li> <li>- 逆時鐘轉向運轉下布</li> </ul>	
 喂紗嘴	<ul style="list-style-type: none"> <li>- 單孔無加瓷環</li> </ul>	<ul style="list-style-type: none"> <li>- 雙孔無加瓷環</li> <li>- 雙孔添加瓷環</li> <li>- 氨綸添紗裝置</li> </ul>
 噴油機	<ul style="list-style-type: none"> <li>- Pulsonic 5.2 脈衝式壓力噴油機</li> </ul>	<ul style="list-style-type: none"> <li>- Uniwave 噴霧式噴油機</li> <li>- 佰龍噴霧式噴油機</li> </ul>
 紗架	<ul style="list-style-type: none"> <li>- B8/B9 組合式落地紗架</li> </ul>	<ul style="list-style-type: none"> <li>- D8/D9 組合式 PVC 風管或鋁管落地紗架</li> <li>- 頂蓬式紗架</li> <li>- 風扇除絮型風扇紗架</li> <li>- 密閉式過濾紗架系統</li> </ul>
 其他	<ul style="list-style-type: none"> <li>- 壞針或布面破洞自停裝置</li> <li>- 機架及布面照明裝置</li> <li>- 上段風扇吹絮裝置</li> <li>- 針盤高度及水平分度規</li> <li>- 壓縮空氣最低需求: 6 bar, 250 l/min</li> </ul>	<ul style="list-style-type: none"> <li>- UNIWAVE 中段噴風除塵設備</li> <li>- 美名格上段除塵</li> <li>- 中央布目疏密調整裝置</li> <li>- 整合式液晶螢幕觸控螢幕可連結以下裝置:               <ul style="list-style-type: none"> <li>• POMS 佰龍線上監控系統</li> <li>• Decotex 送紗長測量儀 (連接埠已提供 2 組傳送皮帶紗長數據, 可依需求購機時增至 8 組數據功能)</li> <li>• 電子中央布目調整裝置</li> <li>• 電子皮帶轉輪控制裝置</li> </ul> </li> </ul>
 轉換件		<ul style="list-style-type: none"> <li>- 間隔織物(三明治布)相關設備</li> <li>- 包紗管設備</li> </ul>

	Standard	Options
 Control	<ul style="list-style-type: none"> <li>- Digital control panel</li> <li>• 3 shift counter, rpm, fabric roll per-set, &amp; working hr.</li> <li>• Stop reason indication.</li> <li>• Emergency &amp; control buttons</li> </ul>	<ul style="list-style-type: none"> <li>- Integrated LCD touch control system</li> <li>• Touch panel</li> <li>• Full info &amp; control present</li> <li>• Ready for POMS and others electronic control &amp; monitor connection</li> </ul>
 Power	<ul style="list-style-type: none"> <li>- 380V, 50/60Hz,</li> <li>- 2.2Kw/3Hp - 3.7Kw/5Hp</li> <li>- 5.5Kw/7.5Hp - 7.3Kw/10Hp</li> <li>- Inverter power control</li> </ul>	<ul style="list-style-type: none"> <li>- 220V, 50/60Hz</li> <li>- 415~460V, 50/60Hz</li> </ul>
 Take - up	<ul style="list-style-type: none"> <li>- Mechanical take up system</li> <li>- Cadratex fabric spreader</li> </ul>	<ul style="list-style-type: none"> <li>- Motor take up system</li> <li>- Folding/rolling take up system</li> <li>- Open with/ rolling take up system</li> <li>- Yung Leader mechanical take up system</li> </ul>
 Needle/Sinker	<ul style="list-style-type: none"> <li>- PL-KRA&amp; PL-KR2B (2 dial needles &amp; 2 cylinder needles)</li> </ul>	<ul style="list-style-type: none"> <li>- PL-KRA(1 dial needles &amp; 1 cylinder needles)</li> <li>- PL-KR2B(2 dial needles &amp; 4 cylinder needles)</li> </ul>
 Camming	<ul style="list-style-type: none"> <li>- PL-KRA &amp; PL-KR2B (2 dial needles &amp; 2 cylinder needles)</li> <li>- Cam positioning by pin</li> <li>- Closed track design</li> <li>- Miss cam fixed on the adjust-block</li> <li>- Single pc design of dial knit cam</li> <li>- Rib cam version below 17G/above 18G is different</li> </ul>	<ul style="list-style-type: none"> <li>- PL-KRA(1 dial needles &amp; 1 cylinder needles)</li> <li>- PL-KR2B rib &amp; interlock (2 dial needles &amp; 4 cylinder needles)</li> <li>- Knit/tuck/miss cams on demand</li> <li>- Highter GSM knit cam (depends on dia" &amp;model) 2 pcs (raise &amp; stitch)design in one dial knit cams (depends on dia" &amp;model)</li> <li>- Blister cam (depends on dia" &amp; model)</li> <li>- Miss cam fixed on the cam box</li> </ul>
 Yarn storage	<ul style="list-style-type: none"> <li>- Positive feeder MPF-20L1</li> <li>- 2 feeder iron rings&amp;1 spare</li> </ul>	<ul style="list-style-type: none"> <li>- Postive feeder MPF-20P1/ NEO Knit</li> <li>- Elastane roller MER3</li> <li>- Other brand feeders on request</li> </ul>
 Frame	<ul style="list-style-type: none"> <li>- Pai Lung K frame</li> <li>- Oil-bathed wire bearing system</li> <li>- Count-clockwise direction</li> </ul>	
 Yarn carries	<ul style="list-style-type: none"> <li>- 1 holes type without ceramics</li> </ul>	<ul style="list-style-type: none"> <li>- 2 hole type without ceramics</li> <li>- 2 holes type with ceramics</li> <li>- Spandex attachment</li> </ul>
 Oiler	<ul style="list-style-type: none"> <li>- Pulsonic 5.2 pressure oiler</li> </ul>	<ul style="list-style-type: none"> <li>- Uniwave misty oiler</li> <li>- Pai Lung misty oiler</li> </ul>
 Creels	<ul style="list-style-type: none"> <li>- B8/B9 type combi creels</li> </ul>	<ul style="list-style-type: none"> <li>- D8/D9 type PVC or aluminums tube creels</li> <li>- Overhead creels</li> <li>- Fan creels</li> <li>- Filter creels</li> </ul>
 Others	<ul style="list-style-type: none"> <li>- Needle detectors</li> <li>- Lightings on frame &amp; fabrics</li> <li>- Top fans system</li> <li>- Central fan &amp; rotating blower</li> <li>- Cylinder height gauge</li> <li>- Compressed air : 6 bar 250 l/ min</li> </ul>	<ul style="list-style-type: none"> <li>- Central stitch adjustment</li> <li>- Integrated LCD control system can be added:               <ul style="list-style-type: none"> <li>• POMS on-line monitoring</li> <li>• Decotex port ( ready for 2 yarn feeding length figures, and can be added to 8 figures)</li> <li>• Electronic central stitch control</li> <li>• Electronic tape speed control</li> </ul> </li> </ul>
 Conversion kit		<ul style="list-style-type: none"> <li>- PL-KR2.5B rib conversion kit</li> <li>- Other gauge cylinder change</li> <li>- Enveloped fabrics equipment</li> </ul>